

The Value of Giving



A scholarship left by a mysterious donor made it possible for Danielle Anderson to become a student in the Lee College of Engineering, and pursue her dream of becoming a civil engineer.

A Special Scholarship Helps Beat the Odds

All scholarships are important to those who win them. In the case of Danielle Anderson, her scholarship is vital to her chance at an education, and it is also a bit mysterious and somewhat providential.

“Danielle was at the top of her high school class and had a great SAT score,” said Patty Tolley, assistant dean of Student Services in the college of engineering. “But she had no family to speak of, and there was no way she could attend college without a scholarship.”

When Danielle and her high school guidance counselor came to visit and discuss possible scholarships, Dean Tolley happened to be away for the day. “Had I been here, I would have had to tell her that we had no scholarships that fit her circumstance. But as fate had it, when she came back to see me later, a new scholarship had just come in that seemed absolutely destined to be hers.”

The scholarship was the Lee P. and Ynez Joyce Scholarship. The recently deceased donor of the scholarship gave no reason why she left it to the college of engineering. Yet, the \$10,000-a-year for four years award was very specific

in how it was to be awarded. It had to be given to a student from a small school in a certain county. The county Danielle was from.

“Because I wasn’t able to meet Dean Tolley that day and had to come back another time, the scholarship seems like it was intended for me,” Danielle said. “It just seemed to fall in my lap, so think I was meant to have it. Without it, I would have had to go to work, and college would have been a number of years off.”

Now a junior in Civil and Environmental Engineering, Danielle said she always liked math and was able to take an introduction to engineering class in high school that made her want to pursue engineering education. “I want to do civil engineering, because for me it’s more tangible,” she said. “I like the idea of being able to do a combination of field and lab work.”

Danielle’s engineering education is off to a great start, Dean Tolley said. “She was in our Freshman Learning Community and then the next year we hired her to stay on as a mentor and a calculus tutor. She has done amazingly well. Because of the scholarship, she has beaten the odds.”

Dean's Note - Thanks for Your Giving



Dr. Bob Johnson

This issue of the Lee College of Engineering newsletter exhibits some of the many ways that giving impacts our college. It would be wonderful if our state appropriations provided all of the resources we need to run a successful college, but the reality is that such money covers only the basics.

The gifts of individuals, companies and foundations are very important to our college in acquiring the lab equipment, computers and other hardware needed to deliver our hands-on engineering programs. Gifts also support student and faculty research.

One of the most important benefits of gifts is the scholarships they make possible. A number of our students would not be able to pursue their engineering degrees if it was not for scholarships. Many of our students have to work far more hours than we would like in order to pay their tuition. This often impacts their performance in the classroom and laboratory. Existing, and hopefully future, scholarships enable students to devote more time to their studies and increase their chances of academic success. All of the students we admit are capable of becoming engineers, and the region and nation needs them all to complete their degrees.

I want to thank all of you who have given to the college and university over the years. This newsletter will show you just a few examples of the great impact your generosity has had on our programs and students.

Remember to designate your gift to the W.S. Lee College of Engineering or the department of your choice. Thanks again for your support.

Dr. Bob Johnson
Professor & Dean, Lee College of Engineering

Important Gifts Come in Many Different Packages

Gifts to UNC Charlotte and the Lee College of Engineering can take many forms, come in various amounts and be used for multiple purposes. The common denominator among them is their importance.

Whether used for scholarships, professorships, equipment, research or student success programs, the contributions of individual donors all add up to make the Lee College of Engineering and UNC Charlotte stronger.

“Donors that give consistently are such an encouragement,” said Ben Mohler, director of development for the Lee College of Engineering. “I really appreciate their ongoing investments in the lives of our students. Their support comes in several forms and in varying sizes, but all address real needs of the college and help the next generation of engineers.”

The value of supporting the college in these ways makes a difference on many levels. In addition to benefiting the university, gifts also strengthen industry relationships, improve the North Carolina workforce, and help students become leaders in engineering.

For more information on gift options, please see the Office of University Development web site at www.uncc.edu/giving. To discuss opportunities to support the college, contact Ben Mohler at 704-687-3422 or ben.mohler@uncc.edu.



Ben Mohler, director of development in the Lee College of Engineering.

Gift options include:

- **Establishing merit- and need-based scholarships**
- **Supporting junior faculty research**
- **Funding graduate fellowships and assistantships**
- **Sustaining student organizations and programs**
- **Donating lab equipment and supplies**
- **Contributing to specific engineering departments**
- **Sponsoring research**
- **Endowing distinguished professorships**
- **Donating to the Dean's discretionary fund**
- **Naming of new and existing buildings, laboratories and classrooms**
- **Establishing a planned gift or estate gift**

Bill Crowder's Gift Honors Friend Dr. David Bayer

In establishing a scholarship for civil engineering students in the Lee College of Engineering, Bill Crowder sought to help students. In naming the scholarship for Dr. David Bayer, Crowder sought to recognize a teacher, mentor and life-long friend.



Bill Crowder

“At that time, there were a number of us from the military coming out of Vietnam,” Crowder said. “There were also some new young faculty in the college of engineering and they were only a couple years older than us.”

“It was a very unique time. We were very close to our professors. Our families had picnics and Christmas parties together. Our professors were more like friends, and it stayed that way over the years.”

Crowder is now the chief operation officer of Crowder Construction. The heavy construction general contracting company was founded in 1947. With offices in Charlotte, Atlanta and Spartanburg, they have a section that does work in bridge and highway construction; a construction solutions group that tackles difficult jobs in tunnels, deep shafts and dams; a utility arm doing water and sewer plants; and a heavy industrial group doing power generation work and steel fabrication.

By dedicating a \$100,000 scholarship endowment to Dr.

Crowder graduated from UNC Charlotte with his degree in Civil and Environmental Engineering in 1975. He had been an older student, having first completed an associates degree at Wingate College, gone to NC State for a year, and then served the U.S. Army in Vietnam.

Bayer, Crowder wanted to pay tribute to one of the college's best-loved professors. Known to generations of civil engineering students as “Doc B.,” Bayer was known as an outstanding teacher whose door was always open to students needing help. Dr. Bayer retired from the college in 2006.

“I had decided in my mind to do something for UNC Charlotte,” Crowder said. “I wanted to give something back to the college and to the people I felt put me in the position to be successful.”

“David is just a few years older than me and has been an inspirational person to me throughout my life. And I know how important he has been to perhaps thousands of engineering students over the years. He has made an impact on this world and that's why I wanted to recognize and honor him.”

The David Bayer Scholarship provides \$4,000 to \$5,000 a year to a civil engineering student. The scholarship is awarded based on criteria for financial need and academic achievement.



Dr. David Bayer with Civil and Environmental Engineering student Michele Moorrees, the first winner of the David Bayer Scholarship.

Engineering Alumni Scholarship

Established in 1998, the Lee College of Engineering Alumni Scholarship is a way for all engineering graduates to pool their money in building a scholarship fund for students.

The scholarship fund started slowly, and then thanks to a substantial donation by Engineering Technology graduate Bobby Morrison, reached a level where at least one scholarship can be awarded annually. The goal for the scholarship fund is that it continue to grow through the contributions of many, and be able to support multiple students every year.

Students applying for the scholarship must have the documented recommendation of a college of engineering alumnus. The criteria for the scholarship is that it be awarded to existing full-time students with a minimum 3.0 GPA.

To make tax deductible donations to the College of Engineering Alumni Scholarship fund, please contact Ben Moler at 704-687-3422 or ben.moler@uncc.edu.

Alumnus John Frampton's Steady Support Adds Up

His two degrees from the Lee College of Engineering were earned about 25 years ago. Since graduating, John Frampton has maintained a continuous dedication of giving to UNC Charlotte, which over the years has added up to more than \$12,000.

Frampton completed his bachelor's degree in Civil Engineering Technology in 1982, and his master's in Urban and Environmental Engineering in 1984. He also has degrees from the University of Akron and Bradley University. Frampton is now a marketing manager at Caterpillar's Commercial Components Group in Peoria, Illinois.

"I've got degrees from several universities," Frampton

said, "and I've always felt like the education I got at UNC Charlotte was outstanding compared to the others. I got a good quality education at Charlotte, and I think it's important to keep supporting it so others can benefit as well. I think Charlotte represents an outstanding value."



John Frampton

Frampton's continuous contributions have added up over the years, and so have matching contributions from Caterpillar. "I've always gotten Caterpillar to match as much as possible to get more bank for the buck," Frampton said. "It's part of our employee benefits program, so I take advantage of it."

EPRI Donation Will Start New Transmission Research Facility

With the Lee College of Engineering building its capabilities in power infrastructure research, and the Electric Power Research Institute concentrating its focus on research instead of testing, the fit was a perfect one when EPRI decided to close down its transmission tower testing facility in Dallas. EPRI donated a substantial portion of the facility's equipment to UNC Charlotte, and a resource that may have been lost to the country will now become the basis for a growing research facility here.

"The EPRI site was one-of-a-kind load-testing facility in the United States," said Civil and Environmental Engineering professor Dr. Shen-En Chen. "It contained four transmission towers that were set up with equipment that could simulate all types of wind, weather and seismic conditions."

When EPRI made the strategic decision to close down the facility to concentrate on research instead of testing, UNC Charlotte approached them about getting some of the equipment. EPRI agreed such a donation would be a good fit with the college's new Energy Production and Infrastructure Center, and gave \$380,000 worth of the gear to UNC Charlotte.



Dr. Shen-En Chen with the control board donated from the EPRI test facility.



EPRI's former transmission tower test facility in Dallas, Texas.

"I've done research for the power industry, including transmission structure testing, for many years," Dr. Chen said. "To get this gift is very exciting for us and our future research programs."

It was not economically feasible to transport the towers themselves to Charlotte. The equipment that was donated includes load cells, strain gauges, winches, computers, data loggers and the main testing counsel where all of data is collected.

"We would eventually like to rebuild the facility in the Charlotte area," Dr. Chen said. "We are looking at property in Gaston County to construct the towers. We estimate it will cost \$18 million to rebuild what had existed in Dallas, and another \$18 million to upgrade the facility to meet modern needs and employ personnel to operate it."

Upgrades to the facility would include making the data collection system wireless and running live electricity to the towers' wires, which had never been done before.

"This is a great opportunity for the Charlotte area to be the hub of power testing," Dr. Chen said. "The U.S. power infrastructure is aging and at the same time power demand is growing, so the need for upgrading the transmission grid is great. This will be a very, very useful educational and research facility, and will create excellent job opportunities for our students."

Engineering Technology

Professor Tom Owen

Gives Back

As an Engineering Technology professor in the Lee College of Engineering, Tom Owen saw firsthand the difference scholarships can make in the success of a student. When he retired, he decided he would make a difference himself in helping a student succeed, and he established a scholarship of his own.

The Tom and Ann Owen scholarship is now awarded to Electrical Engineering Technology students, with a preference being given to those with high academic achievement and membership in the ET honor society. "I really wanted to reward good scholarship and participation in the activities of the department," Owen said.

Owen retired from the U.S. Air Force on August 1, 1992, and started teaching at UNC Charlotte on August 15, 1992. He retired from the Electrical Engineering Technology program on August 1, 2006.

"I went to college on loans and while working," Owen said. "Having to work made it much more difficult. With this scholarship, I'd like to enable one or two students to go to school full time and concentrate on their studies full time."



Tom Owen with the Electrical Engineering Technology student Chrystal Hardie, the first winner of the Tom Owen scholarship.

Owen said he had initially intended for the scholarship to be established after his death with excess money from an IRA. "With the advice of the University Development Office, though, I found out I could start awarding and funding the scholarship now. Some of the money goes to the scholarship recipient, and some goes to the endowment. It's actually not very expensive, and in five years the scholarship will be self-perpetuating."



Blast Research Made Possible

The research of Civil and Environmental Engineering professor Dr. David Weggles and his students is determining the ability of curtain-wall materials to withstand bomb blasts and other impacts. Curtain walls are the outer structural skins of skyscrapers. The research is now in its second generation, which will be a two-year phase. The \$150,000-project has been made possible by the donation of materials for nine 8'x12' curtain-wall panels from Kawneer Company, which is owned by Alcoa. Also vital to the success of the project has been the assembly and fabrication work of Union Glass and Metal Company.



Vapor Deposition Machine from RF Micro Devices



Graduate students Kinnar Patel, left, and Paolo Batoni set up a new vapor deposition machine donated to the College of Engineering by RF Micro Devices of Charlotte. The machine is a custom-built flow modulation epitaxy (FME) metal organic chemical vapor deposition (MOCVD) reactor. It will be used by the research group of Electrical and Computer Engineering professor Dr. Ed Stokes. Now being installed in Grigg Hall, the MOCVD will be used for epitaxial growth of III-nitride semiconductor films for device applications in high-speed electronics, optoelectronics and sensors. The value of the MOCVD is estimated at several hundred thousand dollars.

THE WILLIAM STATES

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