

Get to Know the Math Faculty: Donna Sylvester

Part of a series of Math faculty profiles



Where did you grow up?

I grew up in Follansbee, West Virginia. It's a town in the northern panhandle of WV on the Ohio River. The main employers in the area were steel mills and coal mines. I lived there with my twin sister Deeann, older sister Deborah, and parents. It was fun growing up as a twin. I always had someone to play with and there was a natural competition that was good for both of us (MOST of the time). We did the usual tricks like switching classes on April Fool's Day. Sometimes we participated in a local theater group (the Brooke Hills Playhouse), which performed in an old barn that had been converted into a theater. We appeared in several musicals (*Sound of Music*, *Fiddler on the Roof*, *Babes in Arms*) and sang on the radio. Today, Dee is the manager of a software team for Emerson Process Management (a company based outside of Austin, TX). So, she is another STEM person!

If you are not from Seattle, when and why did you come here?

After I finished graduate school in 1988, my husband, John (who is also a mathematician), and I were looking for jobs in university mathematics departments (the two-body problem). We had visited Seattle the previous year for about 5 weeks and really liked the city and all the outdoor activities. The University of Washington offered John a tenured position and me an Acting Assistant Professorship. While we had options in other cities, the UW was the only institution that offered us both jobs.

When and how did you first become interested in math?

My Dad was a civil engineer. He got his degree through a correspondence school and always wanted his daughters to attend college, an achievement that was limited to less than 20 percent of my high school class. He was the one who motivated us. I always liked math and science. After biology labs got too icky, chemistry labs got too smelly, and physics labs got too frustrating, I ended up in mathematics, which is a beautiful subject that is not offensive to any of my senses.

Where did you go to college and what was your major?

For my undergraduate degree, I attended Bethany College in Bethany, West Virginia. I majored in mathematics with a concentration in computer science. I earned my Masters and Ph.D. in mathematics at Duke University in Durham, North Carolina.

When did you start teaching at Seattle U. and how did that come about?

I started teaching at Seattle University in the fall of 1990. When I was in my second year in my position at the UW, I had a friend with insomnia. He was reading the Chronicle of Higher Education late one night and saw that SU was hiring for a tenure-track position in mathematics. He told me about it and I applied. And the rest is history!

What is your favorite class to teach and why?

I love to teach differential equations. For me, it is a great place for students to see why they took all those calculus courses and linear algebra. The course provides a good review of much of the material in previous mathematics courses. And, it's so useful and beautiful!

What is the most exciting math project you've ever been involved with?

I really enjoyed working with a team of mathematicians at other universities to create an epidemiological model for a disease called Onchocerciasis (commonly called River Blindness) that effects people in tropical countries. The disease had been targeted by the Carter Foundation for eradication, and a statistical model predicted that it would be eradicated after 25 years of treatment. However, our deterministic model helped explain why the desired result was not attained in some countries. (Mostly due to the fact that civil wars and famine made it impossible to administer Ivermectin inoculations to a high enough percentage of the population.)

What is your favorite pastime, other than math?

I like to stay active. My favorite things to do are yoga, biking, hiking, playing basketball, and Ultimate Frisbee. Note that I did not say that I was GOOD at all those things. Also, I used to enjoy painting (acrylics) and hope to do that again someday.

What is your most prized possession?

I am not sure I have one, perhaps my wedding band.

If you could give college students one piece of advice for success in school, what would it be?

Stay organized. Knowing what your assignments are and when they are due can really help you succeed in college. Ultimately though, the goal is not to complete assignments, it is to think and learn, and to develop the ability to continue learning for the rest of your life. So, take some time to find to reflect and find your real interests, and remember that it will take real work to pursue them.

If you could give college students one piece of advice for success in life, what would it be?

Listen to those around you, seriously try to understand what they are saying, and reflect before you speak or act. (I wish I were better at this.)

Anything else we should know about you?

My mathematical hero is Peter Lax. He is incredibly smart, productive, humble, and encouraging. I have two adult children. My daughter, Emily, is an aerospace engineer and my son, Michael, is a mechanical engineer. They both work for Boeing in the Seattle area. All of us are pictured with Emily's husband, Christian, at their wedding in Hawaii, last fall.