Girls for STEM at Mission Viejo High School

by Barbara Hamkalo

Barbara Hamkalo speaking before the STEM Club at Mission Viejo High School

Ms. Wenzel, Math Teacher, with Barbara Hamkalo

Last fall Karen Dennis was contacted by Sophia Sunkin, President of Girls for STEM (science, technology, engineering, and mathematics) at Mission Viejo High School. The group was organizing a series of talks by women in STEM and was looking for a female academic scientist to share her experience. Since I'd talked with other groups on this topic, e.g. WINS (Women in Science) at the University of North Carolina, I immediately volunteered.

I spoke to the group on November 21 answering their questions about what the career is like; my career path; what it takes to be a successful woman in the field; and any advice I could give young girls in order to be a success.

Here I summarize my answers to their queries. My career path was an example of unexpected choices and terrific mentors. Nobody in my family had any connection with science. My father worked in the New York City Post Office, my mother was a homemaker and my brother was a professional musician. I attribute my interest in science to my attendance in an all-girls public high school in New York. The presumption was that we could do anything we set out to do. In my yearbook, I noted that I wanted to be a physicist – don't know where that came from but when I learned that German was the foreign language required for a physics major that was it, since I'd taken several years of French. After taking courses in biology, psychology and political science, biology won. In my senior year I was encouraged to enter a PhD program by a biology professor – something not even on my radar. Fast forward, I received a PhD in zoology from U. Mass., did postdoctoral research at Harvard Medical School and Oak Ridge National Laboratory and landed a job as one of the first three female assistant professors in the School of Biological Sciences at UCI.

My advice to young women (and men) is that curiosity and the ability to deal with both positive and negative results of experiments pursuit of a project regardless of dead-ends is critical – don't give up! Ignore stereotypes and don't be deterred by the notion that you might not be as talented as a male colleague – prove them wrong.

Just remember: When you do an experiment, the results of which weren't anticipated, you learn something nobody else knows or has ever known – isn't that an amazing feeling?