

Stephanie Funk

Mechanical Engineer



Introduction:

I am a sophomore at Purdue University working toward my Bachelor's of Science in Mechanical Engineering with a minor in Astrophysics. Most people can't tell you the moment they realized they wanted to be an engineer, but I can. Ever since the spaceship Colombia exploded, I have wanted to be an engineer. Being one of the few blonde five year olds who received a tool bench from Santa tipped my parents off to my future career. Since an early age I was a Boilermaker, no doubt in my mind. Offering the most opportunities, Mechanical engineering seemed like the best fit for me. I am confident I made the correct choice – it's in me. Mechanical engineering is already a rewarding career choice. I am able to show other females that it is feasible to succeed in a male dominated field by being a mentor and teaching assistant.

Credentials and Experience:

As a sophomore, I have little real world experience in engineering; however, I have taken many classes that will prepare me for a career after graduation. As a freshman I participated in the First Year Honors Engineering program, a rigorous program intended to 'weed out' all the non engineers. I passed the class, and in fact, am now a teaching assistant for the new freshman class. In my classes last year, I learned to work in teams toward a common goal. I learned how to work on a deadline. I learned how to evaluate criteria and think critically. Most of these lessons I learned while building our final project, a robot. As a team we were given 6 weeks to design, build and test a prototype robot that would aid in the clean up after natural disasters such as hurricane Katrina. We were given many goals and criterion for the project. I learned more about engineering from the mechanical build part to the environmental sustainability part during that project than I did listening in class all year.

Other classes that contributed to my engineering education include Chemistry, Physics, Math, Thermodynamics, Statics and Dynamics, Computer Graphics, and English. Now, the first ones are easy to understand how they influenced my engineering education, but English? As a freshman, I was required to take English 108. On the first day of class, my professor told me by the end of the semester I would write and publish my own book. I did not realize at the time how beneficial my writing skills would be for engineering. Not until I was the only one in my team that was able to write a complete and thorough analysis paper did I realize how important writing and communication skills would be to benefit my engineering education.

At Purdue I am involved in several clubs and organizations. I am the vice president of an organization called People to People International. I was one of the founding members of the club, helping in the development. Just recently because of my work in recruiting new members, we are being recognized by the international organization as a fully operational college chapter.

I am also a member of Society or Women Engineers. In addition, I am a peer mentor for a class of twenty freshmen. Once a week I, as a sophomore, teach a class of engineering freshmen about topics ranging from the ethics of engineering, the benefits of study abroad, the tricks to interviews, the places to go for help, physical, mental and academic, and the hints on surviving freshman engineering classes.

For the past three summers, I have worked as a nanny for two different families. For two years I cared for two girls ages 10 and 12. Last summer I cared for an 8 month old boy. While neither of these jobs used my engineering skills directly, subconsciously, I did. Being an engineer, I am constantly planning ahead and working through each of my motions to see how that action will affect me later. I used this strategy when I took care of the children. I had to know if something I did would be beneficial in the long run of the day, week or even year. I used my communication skills to connect with them. I used my creativity to introduce them to engineering concepts; yes I even had the 8 month old boy building block towers!

Currently, I am employed as a teaching assistant as I mentioned earlier. Being a teaching assistant has shown me the importance of a mentor for younger engineers. Not only am I their mentor in class, I am their mentor outside of class as well. I am able to see the development of the young engineers as they progress through the program. What I love most about my job is that I am able to help the students learn and understand what engineers do.

Professional Interests, Global Vision, Career Goals:

In several of my engineering classes, I learned about the engineering grand challenges. Engineering the tools of scientific discovery caught my eye specifically. I believe the other challenges are important, but I feel I can make a difference in helping to engineer the tools of scientific discovery. I ask many questions, and I like my questions answered. If I can help answer other people's questions by working with others, maybe not other engineers, but scientists, doctors, pharmacists, psychologists, or even CEO's, then I would feel I used my engineering degree to its maximum potential.

My dream job is to engineer a product to protect humanity whether it is from each other, viruses, terror, invasion, or even from the changing weather. I am the product of a changing world. I have seen 9/11, global warming, engineering feats and engineering disasters. As a future global engineer, I want to play a part. I want to make the world a better place for my children and my grandchildren. Any way I apply my mechanical engineering degree, I can make a difference. If I work for a defense company and design national security rockets I can make a difference. If I work for a medical instrument company and design a better MRI machine I can make a difference. No matter where I work, I can make a difference because I have the brain and heart of a global engineer.