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EE 494

General Education Reflection

Speaking completely candidly, when coming into college, I did not think that general education credits would be important at all. I was under the assumption that general education was there just to fill credit hours and check off boxes. However, I misunderstood the intention behind those classes. After working with my advisor, I realized that the general education classes could be used for a multitude of reasons. They could be used to explore passions outside of engineering, teach different skills that would not normally be touched on in an engineering curriculum, and used to introduce different ways of thinking. Engineering classes are very complex, and teach very formal problem solving skills. These are very useful day to day, but do not reveal the full story about how think about a problem. General education introduces outside perspectives, and other ways to frame a problem. In addition, they are normally taken with non-engineering students (or at least non-engineering students make up a portion of the class), and as such, you have different perspectives in projects, other views on the work, and a different experience than core engineering classes.

One general education credit I took was ME 484 - *Technology, Globalization, and Culture* (cross listed with WLC). This was a course that combines a look at international perspectives of engineering with industry speakers to create a class that was more on the theory and thought process of engineering over mathematics or analysis, which most engineering classes are focused on. The focus of the class was on globalization and culture part of the description, and this really showed through speakers talking about how American engineers have to play on a global scale and work with a variety of people and situations, and need the ability to adapt to situations. This lead to new ways of approaching problems, and new challenges one had to face, such as deciding between metric and standard parts. One would

assume that for an American company, standard parts would be easier to use and more logical, but what if your product sells better outside the United States? Then you have to take that in consideration as well. Learning about these types of problems and these new ways to approach problems helped me develop as an engineer.

Another class I took, completely outside of the college of engineering, was LAS 491C - *Advanced Service Learning: International Perspectives Project.* This was a class that we took before going to Australia for a study abroad trip. While we originally saw it as just a credit filler, we ended up learning quite a bit from it. The class involved doing research about the culture of the environment and cities that we were going to visit and live in. While we thought this was just filler, it ended up being really important to understand the people when we went there. We visited big cities as part of the World Solar Challenge, but we also visited more remote areas in the Australian Outback. We learned how the people there lived, and how we had to conduct business while we were there to do it in a safe and professional matter. This class taught us about the importance of factors outside of engineering when doing engineering work. For example, one of the things we studied was the environment of Australia. We learned there was a different soil composition in our research, and part of that soil, is a lot of iron. While doing electrical engineering work, it's important to know that environmental consideration, since iron makes electronics behave differently! It was a lesson we learned the hard way, when an unprotected board shorted and caught on fire due to the iron content. This class taught us the importance of knowing all the details, and looking at engineering through a complete problem.