

General Education Reflection

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Throughout my time here at Iowa State, I have taken many general education courses that have greatly diversified my personality, and have contributed to my overall growth as an individual. Iowa State has provided many opportunities, both educationally and professionally, that have enabled me to become more well-rounded student. This was primarily achieved through my general education courses, which allowed me to do two things: pursue interests outside of my degree program and lay a strong foundation for my later computer science and engineering classes.

One of these classes in particular was SP CM 212, or introduction to speech communications. In my opinion, one of the skills that is most commonly overlooked when assessing an engineer's competency in the workforce is their ability to communicate, and communicate well. It is at the intersection of both technical knowledge and effective communication that gives way to the best engineers in the industry. This presents itself in a variety of different ways, but primarily through the sharing of results. Regardless of whatever career field(s) an engineer finds themselves in, they will at some point need to share the information they learn through technical findings/means. Documentation, presentations, emails, etc., are all mediums of communicating these results, and thus a mastering of doing so efficiently and effectively are core values to communicative engineers. In this class, we were required to give speeches on argumentative topics and passionate issues, as well as explore our own passions and interests. This course laid the foundation for my ability to communicate effectively today. Coupled with this class was English 314, or technical communication. Not only are verbal communication skills important, but written ones are too. This course challenged me to prioritize the amount of effort and energy that goes into my writing. Often times, I tend to neglect my writing, and think that simply writing information down will suffice. This is a very dangerous practice, as the organization of information is crucial to other people understanding my thought process, whether that be through writing code, documenting API functionality, or weighing several different design decisions.

A few other of my general education courses, math and physics, helped prepare me intellectually for the harder, more specific classes in my degree program. I categorize these classes as general ed, because they don't directly correspond to or relate to computer engineering, but are still necessary to lay a strong, math and science based foundation. It is in these classes, that I learned how to be disciplined in my studies. The rigor and determination required to learn the material, complete homework assignments, and successfully take exams ended up being quite a bit. However, it was these times that made learning material within my degree program so much easier. Laying the foundation was quintessential for further growth. Specifically, I am talking about PHYS 222 and MATH 267. These courses were some of the most difficult ones I've taken to date, but as I've mentioned multiple times above, they ended up being the most beneficial for long term growth as an engineer.

The final round of general education courses that I feel necessary to mention are the ones where I was able to explore my creativity and passions outside of engineering. I have taken several music theory classes because I have a strong passion for music. Prior to coming to Iowa State, I took private piano lessons for 10 years, and knew I wanted to grow in the area of music theory. Luckily, because Iowa State has many diverse programs, I was able to branch out and challenge myself in areas outside of engineering. These classes also provided a break for me from the more technical ones, which ended up being *very* nice. Overall, Iowa State's diverse offering of courses allowed me to branch out and explore options outside my major, and I'm very thankful for these opportunities and the impact they've had on me as an engineer.

I remember walking into Iowa State, and being slightly frustrated at the number of general education courses I would have to take throughout my four years as a student. Don't get me wrong, at times these classes seemed over bearing, and each one provided its own set of challenges. But, overall, they contributed to my state of a well-rounded student, and I picked up skill sets from each of these courses that proved to be very beneficial in my more recent educational courses and professional experiences. I am so thankful for the opportunities that Iowa State has provided me, and I can't wait to see how they will continue to shape my endeavors as I begin my career in computer engineering and cyber security.