

The general education classes I have taken at Iowa State University will greatly help me pursue my future professional and personal goals. The wide breadth of information taught in general education courses gives a future engineer a strong foundation of knowledge to work from in the workplace. In addition to helping build strong problem solving skills, this strong foundation will help an engineer navigate through their career and communicate effectively with other associates in the workplace. General education classes have also helped me understand the impact of technology and ethics that should be used by a computer engineer.

I hope to use my knowledge learned from general education classes to pursue both short-term and long-term goals. My biggest short-term goal is to become a product design engineer for the Internet of Things. We are experiencing a revolution where more and more devices are integrating with electronics to connect to a larger grid. This revolution will allow us to make more enlightened decisions about how we use our technology and live our lives. I hope that by becoming involved in this field, I can gain experience by working as an associate with a company that has similar goals. I also would like to attend conferences relevant to my field to gain further experience. These short-term goals will hopefully lead to me achieving my long-term goals. My biggest long-term goal is to become an expert in my future specialized field of computer engineering. Becoming an expert would allow me to pursue a senior developer or other lead position with a company. I also would like to become more involved with tech conferences, possibly presenting instead of just attending. These goals will hopefully lead to me achieving my main personal long-term goal, which is to own a large piece of land away from the city to escape to. As much as I enjoy technology, I like to disconnect from it from time to time.

One of the most important parts of a strong general education background is the ability to coordinate with other engineers in the workplace. Technology often encompasses multiple fields. This requires for example a computer engineer to work with an electrical and mechanical engineer to develop the correct software for the drive system of a vehicle. If all an engineer knows is material relevant to only their field, they will not be able to effectively work or communicate with an engineer in a different field. However, if all three engineers mentioned above took two semesters of physics in college, the computer engineer would be able to all understand the basic mechanical and electrical characteristics described by the other two engineers to write effective software for the system.

General education classes provided other benefits as well, providing me other tools besides the expected engineering problem solving skills. One of the largest skills I have learned how to communicate well. The field of engineering is too complex and large for a single engineer to solve problems alone. For this reason, the ability to work effectively and communicate with others is vital to an engineer's success. Technical communication, or English 314, was a critical and challenging class that I have taken at Iowa State. Creative writing was the focus in previous English classes, however technical communication focused on writing styles that are needed to survive in the workplace. Besides writing project proposals and design documents, my professor stressed the importance of communication, like using proper email etiquette. The skills learned already have shown their importance. This past fall I worked in a six-month co-op with a company and was commended a couple times for presentations I developed and test summary documents I wrote.

Another very important class in my general education classes was TS C 341: Technology, Social, and Human issues. The class illustrated how society shapes technology and how technology shapes society. The information provided by this class is helpful for a computer engineer to develop technology that is well suited for society. A relevant example would be the recent hacks like with Equifax. Data has never been so accessible to so many using large databases to store information. However, this convenience comes with the danger of these databases being broken into by criminals. Thus, the public reaction to data breaches will push for more secure systems. Understanding these relations will help an engineer develop better products and anticipate the demands society may have in the future.

Using the knowledge gained from general educations will help me in the future to achieve both the short-term and long-term goals relevant to my career and personal life. A degree without general education will not prepare an engineer for the demands required in the workplace after graduation. I definitely think what I have learned in my years at Iowa State will be very useful in the future.