

General Education Reflection

Michael Becker

Throughout my time here at Iowa State, I have been challenged by many classes, late-night studying, hours spent in SI, and weekends spent doing my own research. I learned a lot from it, but one of the most important perspectives I gained was a different one. Majoring in cybersecurity comes with many technical classes and many math classes, but some of my most profound and exciting experiences beyond learning content occurred in the plethora of classes I took outside of my major. Like I said before, I gained a different perspective, one that made me look beyond the content I was learning and made me analyze the world and view it in ways I had never thought of before. Immersing myself in classes outside of STEM allowed me to learn from my other classmates as well. Overall, Iowa State having the requirements for general education pushed me outside of my comfort zone in terms of how I learn.

My first introduction to these general education classes was ECON 101, the principles of microeconomics. This class opened changed the way I understand decision-making. Before this class, I had no real grasp on economics and how it functioned in the real world. But through this class, I quickly learned that economic principles have such a strong pull on many aspects of human behavior and the way society is organized. Topics of opportunity cost taught me that every decision revolves around trade-offs. This realization extends beyond that of finance; It flows into decisions on how I spend my time, energy, and attention. Using this concept, I have seen myself become more focused because I truly analyze the trade-offs of wasting time versus learning new topics within the field of cybersecurity. Another concept that was taught in this class was incentives, as well as the study of market failures. Overall, the economic literacy gained in this class bleeds into how I view the field I want to pursue professionally. I recognize the fact that companies make investments in security on this cost basis, as opposed to making these decisions for consumer safety in most cases.

The second class I took helped me understand the world from a different perspective. This was International Studies. The farthest I have travelled outside of the United States is to Mexico. My worldview was based in America, and this course provided an overview of major world regions, showing how cultural, geographic, economic, and political characteristics shape an area's identity. I learned about concepts such as privacy rights, democratic governance, and free markets. These are things I grew up with, but I don't know how powerful they were when compared to other countries. This class exposed me to how geographic factors affect economic development, how religious and culture shape politics. Gaining an understanding of these variations helped me understand that there is not a right way for society to solve its problems, as each country has a different culture, religion, and value system. One of the most intriguing aspects was how economic development varied by country and, in turn, their adoption of different technologies based on their different infrastructures. This class taught me to question assumptions and consider the varying backgrounds of not only the person I am talking to but also the overall situation and where it stems from. I learned a lot about understanding in this class, and on a deeper level, it helps me understand people more than anything. I take these concepts and apply them to my daily life. Although most of the people around me grew up in the

United States, I now have an understanding that these people's lives can be drastically different from mine.

Another course that broadened my view was POL S 121. This course revolved around the strategy that goes into governing nations on a global scale. It changed my understanding of global conflicts and cooperation. The course explored how nation-states pursue their national interest through multiple means. It showed me how concepts like alliance and balance of power shape the international relations between countries. Through the examination of issues like security, food scarcity, and terrorism, I learned that problems are increasingly crossing borders. This class also went into depth on foreign policy decision-making and the resulting outcomes. This class has taught me to analyze policy different. I learned that history and previous decisions not only still affect the current global landscape, but also can be taken and learned from to then make decisions in the future. This class has shaped my decision-making as a whole, making me truly look at the actions and the consequences.

The general education class I enjoyed the most was ARCH 321, History of the American City. This class provided a perspective on how the technological and infrastructure decisions were made depending on social climate, culture, geographic, and policy in place at the time. It outlined and went through, decade by decade, American urban development and the architectural types put in place during the time. One lecture in this class always floats through my mind, and it was how, during the conception of our country, we had decided to build similar to that of Rome to show that we were powerful and solid. This overall reflective measure of wanting to portray a certain feeling through a building really intrigued me. It makes me think about how I can apply this to people, and in doing so learned that people often reflect what they are feeling or want through external measures. I also learned to understand America's conception and how laws and technologies shaped what could expand in terms of cities and towns. Understanding the evolution of our country has helped me recognize the patterns of how society adopts current-day technology. Another aspect of this class that was emphasised was how everything is essentially built off of each other, everything has a history. Applying this to the field of cybersecurity, I began to understand how many security systems contain a deep-rooted tie to the people that came before, the policies set in place before. This has taught me the importance of understanding older systems and being technically skilled in order to bridge the gap between old and new technologies.

These general education courses have shaped how I approach cybersecurity by showing me that the technical issues I'll be dealing with exist inside this complex world. A world with changing economic, political, cultural, and historical contexts. ECON 101 helped me understand economic perspectives. International Studies helped broaden my view and understand other cultures. POL S 121 showed me how many aspects of cybersecurity could be intertwined with competition from other countries, and ARCH 321 offered me a way to look at systems from a historical perspective. These courses have not only made me a better engineer but a better person. They allowed me to look at my life in a different way and truly become a more analytical person.