General Education Courses And How They Shaped Me

Daniel Mauricio Vergara Pinilla

Everyday we change in so many different ways and its hard for us to even realize it, that is why reflecting on your past is hard because you need to critically think what has changed, this is what I face when trying to look back at the general education courses I took at Iowa State University, I realize how much they have shaped my growth, not only as a student but also as an engineer and as a person. At first, most of us will see them as requirements to fulfill, but until now, when I have had to reflect on them, I have come to understand that these classes provided me with tools that extend far beyond technical problem-solving. They taught me to think about human behavior, communication, a little of how the world's economics behave, and global systems skills that I will carry into my future as a computer engineer.

One of my first courses, ECON 1010: Principles of Microeconomics, showed me the importance of trade-offs and decision-making under limited resources. The concepts of supply and demand, elasticity, and opportunity cost provided me with a new perspective, the basic "rules" that move our economy, which is crucial to understand if I want to take a project to the market, or how to see trends to get materials for my projects. As an engineer, I constantly face situations where efficiency, cost, and performance must be balanced. Microeconomics helped me realize that these choices are not just technical but also economic in nature and that understanding incentives can significantly improve engineering outcomes.

Later, ECON 102: Principles of Macroeconomics broadened my perspective even more. While Microeconomics focused on individual choices, Macroeconomics helped me understand entire systems, how GDP, unemployment, inflation, and government policies affect entire industries. I began to see why it is important to learn economics, why it is important to understand the government policies and how the global economy moves, why a general country

may prefer a product over another, how to reach more cultures, and how to see trends in the economy before launching a product or service. For example, when learning about inflation, I realized how economic forces affect the cost of hardware components, supply chains, and even the adoption of new technologies. Which nowadays helps understand the new reality of electronics and why international manufacturers are raising the prices of their products in the US market. This bigger-picture thinking reminded me that engineers must design with awareness of global economic and environmental realities.

A very different but equally important experience came from SP CM 212: Fundamentals of Public Speaking. As an international student, speaking in front of others in a second language was intimidating. But this course gave me the confidence to present my ideas clearly and effectively, practice pronunciation, and control in front of a crowd. I learned how to craft a message, connect with diverse audiences, and utilize visuals to make complex concepts more accessible and engaging, which is harder than anyone will think, once you add the factor that English is my second language, and it makes it that I am unable to pronounce when I am nervous. These skills directly apply to engineering, where technical solutions are only as robust as our ability to explain them to teammates, stakeholders, or even the public. This course helped me realize that communication is as essential as technical expertise. This skill is very helpful when you think that most companies look for communication skills.

What unites all these courses is their connection to engineering problem-solving and contemporary issues; they give a small grasp of reality and how the world moves, as well as the skills to live and communicate in this world. Economics provides the lens for analyzing real-world challenges, such as the global semiconductor shortage or the economics of renewable energy adoption. Public Speaking equips me to present those solutions in a way that inspires trust

and collaboration. Together, they remind me that engineering is not just about building systems, but about creating solutions that are cost-effective, socially responsible, and communicated clearly to society.

Looking back, these courses were not “extra” or separated from my degree. They were fundamental in shaping me into a more complete engineer and a person. I learned to think critically about trade-offs and product decisions, to understand the global systems that shape technology, and to express myself in front of any public with clarity and confidence. These lessons will stay with me long after graduation, reminding me that the best engineering is not just technical, it is also economic, social, and human.