

Ethan Van Caster  
Iowa State University  
Spring 26  
General Education Reflection

During my time at Iowa State, I have taken advantage of general education courses that expanded my knowledge beyond electrical engineering. These courses challenged me to think in new ways and gave me perspective on how non-technical fields connect to engineering practice. By taking them, I learned not only about different subjects, but also how to approach engineering challenges from broader cultural and historical contexts.

One of the courses I took was CL ST 369 - Ancient Egypt, where I learned about both anthropology and Egyptian history. This class helped me understand how civilizations adapt to their environment, build systems of governance, and develop technologies that meet the needs of their people. For example, studying how the Egyptians engineered irrigation and construction techniques gave me a greater appreciation of how culture and environment influence problem solving. As an engineer, this is valuable because it reinforces the idea that technical solutions are always tied to the needs and values of the people they serve.

Another course I took was MUSIC 3040 - History of American Rock 'n' Roll. This course examined musical styles and the evolution of rock and roll, but also addressed the social issues and discrimination that shaped its history. Learning about the way public opinion shifted around music and cultural movements taught me that engineering solutions exist in a larger social context. An innovation may be technically sound, but its success also depends on whether society is ready to accept and embrace it. This is similar to how engineers today must consider public perception when addressing issues like renewable energy or sustainable infrastructure.

Overall, my general education courses taught me that engineering problem solving does not exist in isolation. The lessons I learned from anthropology, history, and cultural studies showed me that people, society, and culture all play a role in determining the value of a solution. In a world facing major challenges, this broader perspective helps me think about how to design solutions that people will understand, support, and adopt. These courses have reminded me that an engineer must be both technically skilled and socially aware in order to make meaningful contributions.