

CPR E 494 General Education Reflection

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Iowa State University requires engineering students to take several general education elective courses during an engineering degree program. These courses are intended to teach non-technical skills that may be useful in the future when pursuing a career in engineering. Many of my general education electives were satisfied with transfer credits from my high school experience, but I had the opportunity to take two additional general education electives at Iowa State University, a course on leadership studies and a course on the history of the American city.

During the course on leadership studies, a variety of methods of leadership were covered in the order they were created throughout history. Each leadership method had different ways to lead a group of people and had different ideas of what made an effective leader. These methods ranged from more popular ones like servant leadership, to more unconventional ones, such as a leadership method where a group has no singular leader but is run as a collective. Understanding different ways to think about leadership will be useful in approaching engineering problems, since nearly all major engineering projects involve teams of people. The methods taught in the course can be applied when working as a project manager but can also be useful when not acting as a leader but as a follower to better understand a leader's goals and their leadership style. This can result in more effective teamwork by improving understanding and communication, resulting in better engineering products delivered in shorter time frames.

During my other elective course detailing the history of cities in America, I learned a lot about how cities across America developed over time and responded to changes in society and technology. One of the biggest influences on how cities were laid out and developed over time was transportation. Back at the beginning of US history, rivers were the primary way to trade

goods with other settlements, so most were constructed along rivers. As technology advanced, railroads replaced rivers as a primary means of transport, and later cars replaced railroads. Since transportation is becoming a growing concern due to its impact on the environment, this helps to shed light on why our cities are designed the way they are and offer ideas for how we can design cities in the future to minimize the environmental impacts of transportation. This is an important area and has lots of engineering opportunities in the future.

General education classes provide supplemental information to the technical courses as Iowa State. These classes help make up a well-rounded curriculum and provide different perspectives on real-world issues. This helps prepare students for a career where technical and other perspectives must be balanced to produce quality solutions to engineering problems.