

# Joseph Elliott – Gen Ed Reflection

**GE1. What are your current short-term (within next one or two years) and long-term (next five to ten years) goals? You may include your idea career in engineering or your preferred working environment.**

I have a few short-term goals that I'd like to accomplish within a year.

First, I want to publish a mobile game that generates revenue. I've always had an interest in gaming, but I've always been disappointed in games available for mobile devices. Android, for example, has such a tainted app store that it's difficult to find a game worth playing that isn't riddled with ads and in-app-purchases. The few games that are one-time-purchases have turned out to be great to play, which inspired me to want to make my own. Do I want to be a mobile game developer? No. However, I do want the experience of developing a game. It may provide me insight into many more aspects of the tech world other than programming (like copyright, financial aspects, etc.)

Second, I want to publish an Android app that I've been working on for over a year now. I've been working on an app for managing workouts. Everything in the app has been developed from scratch. But, every time I think I'm about done with it, I think of something cool to add/modify, which extends the development time by another few months. I eventually reached a point where I didn't want to contribute to the app anymore as I got burnt out. My goal is to finally finish this app, and then publish it.

Third and lastly, I want to land a great job. Of course, everyone wants this. My take it on, though, is a bit different. Most of my peers are fighting to land jobs in Silicon Valley or Seattle, unlike myself. I grew up on the Mississippi River in a town of 1,000 people. I'm a fan of small towns, and would enjoy staying in a (relatively) small town. My 'great job' would be in a town like this. As far as the work, I'm really indifferent. There's still so much to learn that I can't possibly lock down a single topic to work on for the rest of my life.

**GE2. What have you learned in your general education electives that allow you to evaluate and formulate engineering solutions with problem solving and innovation beyond the technical aspects in problem solving? How do general education classes help you to think about an engineering problem?**

Only a couple of my electives have directly impacted my problem solving. I took a Political Science class on international politics. This class, arguably my favorite gen-ed class, was primarily about game theory. After studying this class, I felt like I had a new tool added to my belt. As an engineer, my job revolves around solving problems. To solve problems, I often need the right tools for the job. This game theory class added another tool to my belt. The class gave me insight into why certain bodies act the way they do, whether those bodies be government bodies, tech companies, or even project managers.

Another elective that played a role in my problem solving abilities is my American Religious History course. Half of working on a team is being able to work with the team. As I've grown older and diversified myself, I've met people of all types of religions. This religion course helped me grow as a teammate by providing me insight into who I'm working with on a day-to-day. From an engineering perspective, the goal is simple: understand your teammates enough to work well with them. This course has definitely accomplished that goal. For a quick example, at an internship at Cerner, one member of my team was Islamic. Thanks to my religion course, I knew about Ramadan and fasting. This allowed me to modify my expectations and behavior to accommodate my teammate.

As far as my average gen-ed course goes, I've learned more about the social experience of problem solving. I've learned that I'm never alone in solving problems---I've always got someone what I can work with. All the math skills in the world can't help me with cooperation. Being able to work with someone, from my experience, will always lead to a faster, cleaner, and better working solution. These gen-ed courses enabled me to work with this aspect of problem solving to my fullest extent.

**GE3. Describe specific instances where you used knowledge/skills from general elective courses for innovation in engineering problems. What impact does meshing technical engineering skills and general electives-based innovation have in an economic, global, or societal context?**

Only one instance comes to mind where a gen-ed directly helped in engineering. Like I mentioned earlier, my game theory class provided tools to help solve multiple problems. One problem I was solving was about a simple AI where a video game character would mimic the user. To help solve this problem, I fell back on the idea of 'tit for tat', the theory in which an entity will always prefer to repeat the action of the opposing entity instead of any other action. Of course, the programming didn't reflect the 'tit for tat' model exactly, but the concept is what drove the solution.