



I'm really happy about my ME 250 experience. It was really hard and time-consuming, but it was so rewarding to finally have a hands-on class where I could apply the more theoretical things I have learned at U of M to something I can touch. And not just that, something that moves and operates, something that I actually helped design and that existed only on a computer just a couple months ago.

Honestly, a lot of things that we did this semester felt like failure. We screwed up a lot. But in the end, I am genuinely encouraged by the thought that I learned from all those mistakes in a way that will make me really ready for 350 and beyond.

I don't think my hindsight is quite 20/20, but here are some things I learned.

1. Scheduling. It was obvious, but we still really put ourselves down to the last minute, and it would have been so advantageous to have more time to test and work out bugs. So, set aside a lot of time, and set group due-dates for steps in the project.
2. Prioritize and work efficiently. A lot of the time I didn't know what I should do next, even sometimes when I was whiling away my evening in the shop. It was always really worthwhile to step back, get organized, and make a prioritized list of what needs to be done.
3. Be methodical. We had to redo far too many parts. While it made us better at machining, it wasted valuable time. Design and plan carefully and critically.
4. Make things precise, or make them error-eating. Precision concepts really didn't seem important until I had pieces that didn't fit together. I finally learned that precision actually is important. On the other hand, a lot of times it isn't necessary, but then we should design things that way. For example, we could have fastened things together a lot stronger and in ways that didn't have to be so precise. And using rubber bands for one of our transmissions was easy and didn't require precision, but it was only good for that application.

Of course, I also learned volumes about manufacturing parts in the machine shop. I had previously known nothing, but now it's hard to even say what I learned because those skills and understandings are growing to be second nature. I enjoyed the machine shop. I was very aware of how just much I didn't know, but that made me all the more ready to ask questions.

If I went back in time and redid the course, I would go to lecture more, spend my time better, change our design a bit, and make an awesome team video. My group would be a lot less stressed about the project than we were. However, I don't want to go back. It turned out pretty well. Most of all, I'm happy my group got along so well and I'm happy that we tried a really original design.

As for improving the course, I will say first off that obviously I am quite biased, but I wouldn't have an hour and a half lecture and I wouldn't have it at 9 in the morning. I have a lot of trouble sitting still and focusing for that long. In the cases of the lectures that I did go to, I felt that the material could have been presented in under an hour. Other than that, I wish we could have more than 4 weeks to manufacture the project, especially since at least one of those weeks was a really rough one for ME students.