Fluid Mechanics Reflection Letter

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I believe the work I have presented in class and on this portfolio meets the course objectives. I think the first course objective of being able to describe the nature of fluids and define different properties was fully realized. I think that homework 3 can show this. As it Is one of the turning points for me in the class when I could start effectively using Bernoulli's equation. For me, the first test in this class was mostly a learning experience of how challenging this class was going to be. I was able to mostly rise to the occasion with hiccups here and there.

Aside from this homework, I think the real turning point in this class was test two. Test two consisted of important learning objectives like buoyancy and stability of floating vessels, as well as friction in pipe fittings and friction loss in pipes. Other smaller course objectives were also sustained like understanding of water hammer and open channel flow are also addressed. This is my personal turning point because this is when the class got the most interesting. The topics discussed made me exited to be an engineer. Finally from test 3 the course objective of being able to compute friction loss in series and parallel pipes was put to display. Even though this was the most challenging topic for me, working through this objective was one of the most rewarding for me. I can see me using the iterative process learned for years to come. It taught me a very valuable skill.

My learning was demonstrated from my progression from each test. With each test the material got more difficult but my drive to understand also grew. I felt most successful at test two. As I stated it is my turning point for this class. It is where I started to become confident in my abilities. I was able to use my base line skills learned in this class to apply to a multitude of subjects that require a version of Bernoulli's equation. I think that buoyancy and vessel stability will intersect with my career. I plan on being a marine engineer and potentially a ship engineer. Vessel stability will be a topic that I plan on basing a career on. So far, I have not been able to apply many concepts learned from this class, but I plan on rebuilding and renovating a motor

vessel in the future summer, so these topics will be vital in the coming future. I believe I will use the material learned like buoyancy and stability for that endeavor. I think the material in this class will be vital for my professional career. If I were to start this class again, I would tell myself to answer more question is class. I knew the answer to many of the questions asked but was to scared to raise my hand in fear of being wrong.

This class has improved my ability to analyze problems. I know now that I need to look at problems and think about what needs to be solved instead of what equation I need to use. My professor was a big part of this improvement as this is one thing that he stressed. My biggest accomplishment in this can be broken down in two parts. My performance on test two, as this test was on my favorite topics and that can be shown in the test 2 reflection. The second accomplishment is on the group project. During our initial prototyping phase we ran into a few problems. The biggest one is how we were going to use our leaning devise to challenge the students. It was my idea to give them a time challenge to get the right flowrate. The full challenge can be seen here.

One thing I excelled at in this course is time and work management. As you can see in all of my test reflections I was able to manage my time with each test to mitigate the freak out factor that comes with them. So, I think time management was a strength I have that helped me through this course. I also think that sheer interest in the topics taught was also a major strength that prevented me from giving up. A weakness I had during this class was devotion to homework. You can see on some of the homework's that I completed had sloppy solutions. Later in the semester you can see that homework's 5 and 6 had questionable effort. I believe I can learn from this and put better effort where it is needed in the future. Before I took this course I though it was going to be out of my level. I was worried I would get lost right away and walked in kind of hopeless to the first class. After every class, this feeling was mitigated further and further as my confidence grew. As of now I have completed this course and I am very glad that I had the experience of taking it. It was one of the hardest, but also the most rewarding class I have taken. This class taught me that I can be an engineer and I am not out of my element.