

1. The first parts of this course came fairly easily to me. The initial chapters that discussed the nature of fluids and properties of fluids were either familiar or built on familiar topics to me. The pressure, forces and buoyancy of fluids all built on concepts and skills I had learned in Dynamics and other science classes I had taken. The application was different, but the process was comfortable. One example of this was my first [test](#); it was not perfect, but I understood the concepts and felt pretty confident when I turned it in. As the course continued, I felt less confident with the new concepts we were learning. I struggled with iterations as it felt uncomfortable to select a value for an unknown. The work that I did on the second unit's homework and test did not feel as easy, which is understandable. I lost a lot of confidence during that unit, but I continued to watch the lectures over again and check my [work](#) with the solutions and class documents. I did better on my second [test](#) than I was truly expecting and that eased my mind some. The concept of computing losses in pipes took me some time to grasp, but I was helped by one of my group members. I discovered that I had trouble switching some of the variables from what I had always used them to signify to how they are used in Fluid Mechanics. Over the third unit, I worked a lot on learning how to complete iterations. My [homework](#) and [test 3 demonstrated](#) this work. I especially enjoyed learning how to complete air drag problems - it took a little time, but I discovered a confidence in these problems I hadn't felt in a little while. One problem on test 3 was about air drag. I made a mistake on the cross sectional shape of the object, but I knew what I was doing. That was an amazing feeling. I knew that I needed to use iterations and I knew how to use an Excel spreadsheet to solve iterations. As the class moved into pump selection and NPSH calculations, I worked to continue to understand the concepts. I watched the lecture recordings multiple times to understand NPSH especially. It was one of the [tasks](#) that I completed for my group. Overall, I feel that I accomplished a lot in this class, but I know there is more for me to learn. This is the case in the engineering profession as a whole - it is a profession meant for lifelong learning. Through the project, I learned through my partners and completing the tasks. For instance, I didn't realize that fittings sizes and pipe sizes are usually the same. I initially thought the elbows must be a different size. [Task 6](#) demonstrates my learning in this area. Our [project](#) also demonstrates our learning as a group through this course.
2. The following speak to my learning and use of this course:
 - a. My learning is demonstrated through my homework, tests, and project tasks. While they are not perfect, I demonstrated continued growth as I continued through the course. For example, at the beginning of learning about iterations, I wasn't even sure when I needed to use iterations and I couldn't figure out where to start. By the end of unit 3 and [test 3](#), I had completed multiple iterations for assigned problems. Again, perfection was not achieved, but I had shown growth there.
 - b. Based on my above response, I believe I improved the most in understanding iterations. I also gained a better understanding of the terminology and notation used in Fluid Mechanics. For example, the chapter on air drag and [task 11](#) gave me no trouble at all even though it would have thrown me for a loop earlier in the

course. I knew how to use the properties of fluids as well as charts that gave more information from initial values.

- c. This course will aid me in my career because I hope to become a civil engineer. I would love to work on road and bridge projects. I will especially need to know how air and water influence the structures being built. For example, I wrote a paper for Engineering Ethics this semester about three bridge failures in the last 150 years. In this [paper](#), I talked about the Tacoma Narrows Bridge which was felled by wind forces. The design of proper bridges for distributing loads also came into the paper I wrote and we learned about that some in Fluid Mechanics as well.
- d. I have not had a chance yet to apply the information from this course in other courses. I am only a part time coach at this time, so I also have not applied this at work.
- e. I think I will use this information, if I am working on bridge or road projects, to work with the mechanical engineers. I think it will be useful to understand what the other engineers are working on and be able to check numbers as a preliminary measure before sending designs onto engineers whose specialty is fluids.
- f. I do believe this course is important for my future career. I need to have a background in many things that enable me to work well with other engineers. I will be able to contribute to conversations about other aspects of projects than the ones I am specifically tasked.
- g. I am particularly excited about being able to apply the air drag concepts to something like a bridge or other structure. I have heard so much about the Tacoma Narrows Bridge because my father is an architect and finds it very interesting. Then, I wrote my paper on bridges, with one being the Tacoma Narrows, so now, I am interested in learning more about the flow of air around bridges.
- h. If I were to start this class again, I would suggest starting to watch the lecture videos multiple times earlier in the semester. I would watch the lecture in real-time but didn't start rewatching them until sometime in the second unit. I would also recommend doing more than the required homework problems. At times, I didn't have enough time to complete more than the required problems, but I think it would have helped me more.