MET 330 FM- Final ePortfolio

My Learning was demonstrated through the HW assignments and the Tests of this course. I felt most successful on the first test dealing with the nature of fluids, manipulation of Bernoulli's equation to solve for losses in pipes and fittings. I was able to show my knowledge calculating for flow rate of a fluid through different openings of a valve, 1/4 open, 1/2 open, etc. I can really see this course material intersecting with my career in HVAC. Dealing with piping layouts for cool water systems, and heat pumps boiler applications, etc. This summer with the internship for a water quality and treatment company, I will be able to perform flow calculations for the plants and facilities. I feel like I will use this material in the future when designing a plant for Hazen and Sawyer, and or deciding what pump to use when dealing with boilers for building heating and cooling. I believe that what I have learned from this course is very important to my professional career as it will help me to make more efficient decisions and to ensure that my work is quality. Going into the HVAC industry, the skills gained from this class will directly apply. I feel that I will use the skills learned from class when designing a pipe layout for a boiler system. If I were to start this class over, I would tell myself to do more problems, meet with the professor to gain more knowledge and understanding of the material. Practicing more problems will benefit you and set you up for success.

Concluding this class, I have improved as an engineer by thinking about all the changes that can occur when one piece or part is installed. Knowing the repercussions that changes in the system can cause. The course work with different problems and different ways of solving them brought forth this improvement and many more. Paying attention to detail and selecting the proper materials is very important. The biggest accomplishment I had in this course was my first test. I feel as though I had really prepared for the first test and set myself up for success for the remainder of the course. I think calculating flow rate is an important skill to have for most engineering jobs and this skill will come in handy later in my career. I think I mastered Bernoulli's, pressure change, energy losses, and viscosity of fluids through this course. My HW assignments 1.1-1.3 are exemplary of these skills, as well as test 1. I think some of my weaknesses is iterations. Not knowing what the exact number or value is, is very off putting for me. I think selecting a pump is a bit difficult for me as well. The pump section of this course was very short, and I didn't have enough time to grasp the material as well. The reason why I say selecting a pump is because the "small project" that was due at the end of the semester and I struggled to correctly follow the process of selecting a pump.

Going into this class I thought it was going to be very hard and that I would struggle with the material. So, I always thought that I would hate this class. I also thought that there was a chance before takin the class, that I would have to take it again. Quite the opposite happened. I think this course is a very interesting course and there is a lot to learn from it. This course is by no means hard, but it does require a lot of time. I think that this course is one that all engineers should go through, except for electrical, as it will better suit them for many applications. I will say that this class is by far the best engineering class that I took in my entire engineering student career. I will say that before this class started, I saw it on one side of a coin, and now that it is over, I see it on the other side of the coin. At first, I was looking at it all wrong and now I look at it as an accomplishment and its material that I will use furthermore as I progress as an engineer professionally.