MET 330 Test Reflection 1

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1) This test is an attempt to demonstrate an understanding of the concepts of primarily Bernoulli's equation, Reynold's number, and use of Moody's chart as well as an understanding of creating equations within excel to be able to solve for various factors. The course objective intended to be satisfied by this test is describing the nature of fluids and defining fluid properties.

2) As far as the structure of the test, the rubric was followed correctly on my work, but the calculations were not reflective of an understanding of the course objectives. To begin, in problem one I neglected to convert my pressure calculation from psi to lb/ft^2 as indicated in the test solution. Also, for problem one, I incorrectly used the "gamma h" equation by placing the wrong units in the wrong places and simplifying it in a manner that was not sufficient for solving the problem. For problem two, I attempted to solve the entirety of the problem with only Bernoulli's equation and neglected the use of Reynold's number as well as Moody's chart. The entire point of failure for myself in this test is an inadequate understanding of the concepts taught in the first weeks of class. To prevent this from happening in further exams, I will rewatch every lecture taught prior in the semester and retake the notes, as well as seeking tutoring to help further my understanding in the concepts of an essential class.

3) With the 10 points from the rubric and homework assignments, the minimal amounts of the test I did do correctly amount to roughly a 26/90. Again, this test was a very poor example of an understanding of the concepts required to satisfy course objectives, and action will be taken to improve myself for future assignments.

4) a) Any issues that I encountered completing the test involve purely my lack of understanding. There is no excuse for these results, but with moving into a new home and dealing with plumbing issues and flooding for weeks, I've allowed myself to neglect this class and not allow the proper time to understand the concepts.

   b) The steps I took to complete this text involved my best attempt to solve questions based on the understanding of Bernoulli's equation that I felt I had.

   c) Through the days of the test, I spent plenty of time reading notes and everything that I had thought would help me understand the concepts, and while I furthered my understanding of the individual concepts, analyzing a problem and understanding how to assign those variables into the equations is something I need to work on.

   d) I believe that engineers use these concepts in applications like working in/designing factories. For example, selecting a pipe that would best fit a specific flow rate or velocity would be directly within the requirements of the job.

e) I believe that in my chosen field of engineering, I will use these concepts in fluid related problems such as oil and fuel delivery.

f) Everything I learn in this class, including the ability to take responsibility for our work, as well as the ability to coordinate projects with others are important things for any engineer to be able to do.

g) When I fully understand these concepts, I believe that I will be using these concepts in my preferred application of engineering, which is automotive. Engines require many fluids running through them to run, so I'm sure I'll be using these topics in the future.

h) I have lightly used preliminary versions of concepts in this class in my corresponding lab class.

i) I feel as if I've improved greatly in terms of mentally shifting this class to the front of my priority list.

j) I feel that the content of this course will help me design my own delivery systems, allowing me to select the appropriate piping and fixtures to satisfy requirements of an engine.

k) I spent around 15 hours on this test spread over three days, with many iterations of the work written down in my notebook. For the next test, I will be much better prepared and manage my time better as well. The results of this exam cannot be recreated if I want to pass this class.