ABE 301 survey Name: **Kathryn Atherton**

As discussed in class, the structure of this course is very different from most knowledge-based courses, since it focuses strongly on the process of modeling and computational/numerical methods. As you undoubtedly have recognized, this process/analysis orientation is both extremely useful/valuable as well as being difficult to master. I would like your thoughts on how to better structure this course to be more successful at developing student mastery of this.

Please fill out answers electronically and email file to me.

1. Should the assignment structure (weekly quizzes, project) be changed back to a more traditional homework/quizzes/exams/project structure for next year’s students? Please recognize that the intent of the current structure allows students more control/flexibility of their time/effort, but assumes they will take responsibility for/participate in the active learning process (need to read/investigate information on own, do peer teaching, ask questions in class).

**In terms of flexibility for my schedule, I appreciated that the class structure was focused on quizzes and the project. However, I feel that I would have benefitted more from having less frequent quizzes and two exams and/or having more solely take-home quizzes. I think this would allow for better preparation and mastery of each topic.**

1. What would you change about the structure of this class to help students learn the material/be successful?

**I think that toward the end of the semester when we had time to work with our peers on problems before having the answer explained and worked out was a helpful class format. I also enjoyed the mini group project that we worked on at the beginning of the semester with modeling the M&Ms in a bag. I felt that I learned a lot about the modeling process and the purpose of the class from that, so I would definitely keep that activity and maybe add more.**

1. As we discussed in class, there seems to be some gaps in concepts/understanding of some previously taught materials, e.g. system definition, mass/energy balances, transport concepts, etc.). Did prior educational experiences/courses provide adequate knowledge/understanding/skills to be able to do the required work for this class? I.e. did your previous classes adequately prepare you to do the work for this class (if not, please provide feedback to help prior course instructors, if appropriate). If they did, what is needed to help you utilize this information on projects/quizzes?

**I felt that some classes were highly derivation-based, which doesn’t really help to understand the applications or practical uses of the concepts. I feel that as an engineer, it is more useful to, as you taught us, set up a problem with the given information, than it is to be able to derive basic equations. Additionally, the way the derivations are taught are very much the professor walking through a math problem step by step while students copy things down. This is not conducive to understanding why things happen, and it trains us as students to kind of memorize what to do for a limited set of situations. Obviously, in the real world, we most likely will encounter problems that are not within that limited set of situations, so while memorization will help us succeed in the class, it won’t help us to gain a true understanding of the concepts.**

1. What suggestions/information would you give to future students to help in this class next year?

**I would tell students to get a head start on everything, from the modeling process to creating codes for the quizzes. I would also recommend saving notes from past classes and referencing them when those concepts are required in class. Additionally, choose a model where you know you already have learned a majority of the concepts required to solve the problem. I chose one that required concepts from ABE 308 and we didn’t get to them until the end of the semester, so I struggled figure out how to solve it.**

1. The Provost’s office has asked me to serve on a university committee to determine if the Blackboard computer software is effective/useful for students/faculty and whether it should be changed to a different system. How do you use Blackboard (what functions do you mainly use)? What functions/services would be most useful to you in such an electronic information/educational service?

**I like Blackboard a lot. I like that it allows for organization of class materials and keeps everything in one place. It is most effective when all of my professors use it for announcements and sharing class notes, as I can get all of my resources from one place. I also like that, as long as a professor has left the class open, I can access materials from past classes. As a TA, I have used it for a class as well, and I find it useful that you can email everyone or just a smaller group of people at once.**

**I think it would be more useful if it would calculate our grades for us as weighted by our professors. I was told that it doesn’t do that correctly, so the “overall course grade” we see on Blackboard doesn’t necessarily match our true grade in the course.**

1. Other comments/thoughts?

**I appreciate that you return graded assignments in a timely manner. Most professors take weeks to return graded papers. I would like more feedback on assignments, however, even if it would then take longer to return papers so that I know how to improve for next time.**