

To My Students

The results from Unit Two Exam were no better than the first Unit Exam. More people failed than passed. I tried to understand the exam results. I talked to other professors and to some students. I even went back and read my "First Day Orientation" to see if I somehow misled or failed to clearly state the class goals and what it would take for students to pass Biol 2710. (Please go back and read "First Day Orientation" on the Web site).

So, here is what I have concluded. I can put most students in one of these groups. There are some students who rarely come to lecture or lab but show up to take the Unit Exams. You know this is true because there are usually twice as many students in the class when we take an exam. For these students, there is nothing I can do for them, however. They do have access to my Web site (i.e. my lectures, videos, lab photos and more lab videos). If they were exceptional students then maybe they could earn an "A" without coming to class. It is possible. But these students are all failing.

There is another group who lack the foundational knowledge or the capacity to learn the essential knowledge required while taking the AP class to earn a passing grade in the class. These students should have taken a college level biology class where they could have learned basic chemistry and life science principles before taking AP. Our counselors should do a better job to prevent unqualified students from enrolling in classes without prerequisite knowledge. There is not much I can do to help these students. I encourage these students to continue to attend class. These students still have an opportunity to learn something about AP and anything they learn now will help them in the future.

Then there are the students who do attend class but can not find the time to study three hours per day in a learning environment. By this, I mean in a library or similar setting. Not study time during commercials breaks while watching a TV program or in some other distracted environment. Learning new material is hard work. Learning complex systems with long pathways is very hard work. You just can't read about these complex mechanisms a few time and know it. You need to draw out diagrams from memory and label your stretches to prove to yourself that you know it. You need to meet outside of class with other students and quiz each other. It is easy to fool yourself into thinking that you know something. . "If you ever hear yourself saying, 'I think I understand this,' that means you don't." Dr. Richard Feynman PhD, Nobel Prize Theoretical Physics There is still hope for these students. These students need to change their behavior and start to follow my recommendations. There is no way around it, learning AP is all about time on task: Preparation + Opportunity = Success.

There are also students who do come to class, study three hours per day, try to meet outside of class with other students to study, and are still performing below their expectation on exams. Here I am concerned. Something is wrong. I believe if a student follows all of my recommendations then they should be able to earn a high grade in my class. So, I would like to have an honest and sincere discussion to see why these students are having a problem with the exams.

Here is another problem. The lab scores are just as bad if not worst than the lecture exams. I can see the problem. You too should know the problem. Few if any students prepare for lab. Too many students sit at a lab table looking at their lab manual illustrations for the entire lab period. This is the preparation that you should do at home before you come into the lab. While in lab, you should have in one hand the learning objectives and in the other hand a wood pointer. You should be walking around the room with another student or two as you quiz each other using wall charts and models. I don't see. There is no way around the obvious. Lack of preparation leads to failure.

So, there were 400 plus study guide questions in Unit Two but only 166 hot list questions. On the Tuesday before the exam, we had a Q&A Session. I made a point to cover every hot list question during our review. The lecture exam used 104 of these hot list questions. Now, I try to expose my students to as much information as I can because I believe it is in my students best interest, however. I don't think it is practical to ask my students to know all the answers to every study guide question, But, I think my students should be able to learn 166 factoids from six chapters. That is less than 30 questions per chapter. If you made flash cards for these 166 factoids and reviewed them several times each day, then you should be able to memorize these hot list question factoids. If you are making flash cards but do not have the correct information or not enough information on the flash cards to answer test questions then this too could be a problem. This is why I ask students to work with other students outside of class and quiz each other using your flash cards. This will allow you to edit your answers and form a more complete answer.

We have crossed the Rubicon. We are half way through the course. I will show up for class on Tuesday and I will be prepared for the opportunity to work with my students. Call me crazy, but I still think there is time for most students to earn a passing grade. Remember, there is a "replacement exam" at the end of the semester. To take advantage of the "replacement exam" you need to start now to learn what you failed to learn in Unit One while we continue to cover new topics in class. So for most students, if you are going to succeed then your behavior must change. What you are doing now is not working. I am open for suggestions, however. Without you making time to study up to three hours each day, and coming to lecture and lab prepared, there is no magical solution that will reverse the trend line in this class. This is still my best formula for passing this class: preparation + opportunity = success.

Sincerely
Cliff Belleau