

Hi everybody,

Thanks for all the great feedback.

Many students seem to be struggling, but struggling in a positive way and making progress. Students are expressing a feeling of being crunched with combined workload of physics with other classes and life's commitments. There is concern about the final exam and what will be tested. I respond by letting you know that final exam questions may cover anything we've done in class, videos, problem sets, and tests. However, 121 students won't receive questions like the \*\* problems, problems requiring calculus, and won't receive questions related to escape velocity. I think that making this step to circular motion is challenging and I encourage students to master the basics – like knowing what is  $\theta, \omega, \alpha$ , and how they relate to linear  $x, v, a$ . For instance, please know the difference between  $a_{\text{centripetal}}$  and angular acceleration,  $\alpha$ . You will also be responsible to identify the four lenses for rotational problems as well. Again, please remember the grading rubric from the syllabus does not require that you can solve all the problems... or even *any* of the problems:

### **Grading:**

There will be three graded exams: two midterms and a final exam. Your final grade will roughly be half the final exam and half from the two midterms. These exams will be graded A, B, C, D, F, based on ability to communicate the correct physics.

D: Correctly identifies underlying physics concepts and use of units a minority of the time.

C: Correctly identifies underlying physics concepts most of the time with reasons and good drawing and reasons. Usually uses units correctly. Produce a video demonstrating a physics concept.

B: Consistently correctly identifies underlying physics concepts and uses units correctly.

Majority of the time: sets up problem with good drawing and reasons, formulates method to solve problem. Usually verifies whether answer makes sense. Produce a video that clearly demonstrates a physics concept.

A: Consistently correctly identifies underlying physics concepts, sets up problem with good drawing and reasons, formulates method to solve problem, correctly uses units and verifies whether answer makes sense. Produce a professional, thought provoking video.

F: does not achieve threshold level for D

I didn't tell you when the project was due until the week before. I apologize for this and recognize that I should have put the due date on the description website when I originally posted it many weeks ago. Please contact me if you wish to negotiate a later due date, although I'd encourage you to get the project done Monday (or sooner) and then dedicate yourself to studying for your final exam.

There are requests for answers and solutions for problem sets and for me to go over them in class. I will continue to provide solutions, and some solution videos. I will also go over some aspects of some problems – especially if asked to do it. If there is something lacking (like “the second part of the angular momentum problem didn't explain where the formulas came from”) please let me know and I will do my best to provide the appropriate support.

I was quoted saying “no one is watching the videos.” I think exaggeration often escalates conflict. I am sorry I said this and of course it isn’t true. I am voicing my own insecurity and concern about how I *think* some students are doing. In any case, on Friday at 10:30 AM: 19 students have seen the video for last Thursday’s class, and 25 students have seen the video for last Tuesday’s class on point mass angular momentum. These numbers include people who don’t watch the whole video or just click directly to the YouTube video. This is in contrast to the “big picture” video from Thursday of week 1, which only one student hasn’t seen, and most students answered most of the questions. So, while certainly people *are* watching the videos, I am concerned about the significant number of students who are not. Either way, I am sure that each of you are thinking about how best to achieve the result you want and are making decisions about what to do.

Some students have expressed that they have had some questions and haven’t been able to answer them in their group and want more guidance. If a group has a question, please let me know.

Several nonSUSTAIN students have requested to join us for next quarter’s 132/122 class and lab. It is not possible with the present situation, but I have brought this up with the department and they are scrambling to see if there’s a way we could swing it. I’ll let you know when there is a decision one way or the other.

“Catching up with the videos paid off in doing today’s exam.”

“I like the videos, I just have to make sure I keep watching them every day & don’t get behind.”

“I really like the demonstrations that we are using and I love being able to actually use them myself. There is a lot of info, but I think it is possible to learn if you watch the videos, ask questions and be engaged.”

“Big Exams help me understand the physics better.”

Totally self indulgent thoughts – ignore if you want:

We talked today in SUSTAIN about stress. I think my source of stress is about service to others, and with this comes control... trying to control others. I have these feelings with my students and my family because my core mission is to serve both, and in doing so, there is an uncomfortable element of trying to control and take responsibility for what others do. When my kids fight, I have a very difficult time because I am trying to control their behavior. I feel similarly with physics students. I want for you to understand correctly what to do, and I get frustrated when you don’t know. Teaching something has a “controlling other people” element to it that is frustrating for me. You also see I am uncomfortable about the watching videos issue, because I think that this is how you will learn, and I take responsibility for your learning. When students are having difficulty or have anxiety, I feel stress because I feel I should do something to give them this understanding, and I also feel responsible for their stress. I think that letting go of this is very important, but I struggle with it.

Thanks, Pete