

*Hi Everybody. Please find below your unedited feedback in black. My response to some of your statements is in purple italics. My experience is that this time (end of week 2) is the low point for many students in the adjustment process. This is when the confusion (the feeling of learning) is at a maximum. Still having trouble getting the right lens? Of course you are! We just covered the first 6 weeks of standard physics concepts in two weeks. We will continue to refine lens use as we do more examples adding rotations and complexity. My experience is that students relax and become more confident in the next two weeks.*

*Thanks for your comments, below  
Pete*

Deciding between lenses when solving problems feels very difficult because while multiple lenses could solve the problem, one lens will solve the problem in an efficient amount of time while the others will take too long to finish all of the problem. This leaves what feels like the correct lens to choose out of all the lenses.

Doing the Big Exam! #2 like that was very helpful. I felt like I did very well on it, but I need to be doing more practice problems.

I find it hard to keep it up with the lessons. I feel like I'm constantly confused. During class I'm unable to focus on what we're talking b/c I'm so concerned about what I don't know. I have anxiety and intensive thoughts that make focusing hard.

- Love Office Hours
- Need to rewatch vids
- You inspired me to get an Environmental Science minor 😊

Going to office hours to work through problems has definitely helped. It has taken getting used to this learning style but so far I like it. I still definitely think I need to re-watch some videos over the weekend. I still struggle with picking a lens.

I'm having a difficult time identifying a lens, arguing it and then choosing the proper way to solve it.

I love the class and the lens approach to physics problems. I struggle, however, to visualize the relationships between  $\Delta x$ ,  $v$ ,  $a$  over time graphs. My ability to get the right numerical answer is low. I don't have much time to put the amount of work and study into the class as much as I want to, so I usually leave the problem sets for the weekend, but this makes it harder to keep up with problem solving in class.

I like physics and enjoy learning the material but I've never learned it this way and it is a hard learning curve right now. I appreciate that you want us to explain answers and I think that is a great aspect of the class but it is frustrating when we feel like we are explaining ourselves but it isn't exactly the explanation you are looking for, so it is wrong. I wish you were more clear with what you're explanations for the problems are. Also, you need a water bottle.

*Thanks, and good points. Rather than tell you clearly what I want, we will practice getting this clear through Big Exams! and practicing. While it seems that I require very rigidly exactly the correct wording, you will find there are many ways to express an answer correctly for full credit. My experience is that “exact wording” isn’t a challenge for students by the end of the quarter... I reuse PETE recyclable water bottles from the trash. It works just fine.*

Everything’s going pretty good so far. I think I need to work on my motivation for lenses but other than that, I think everything is good.

Most of what we’ve learned in this class has been more or less a more difficult review of high school physics. I feel like the lenses do make material easier to understand once you know which one to use, but having every available option open from the beginning can make it difficult to know where to start. Over all I feel the class is more fun than I was expecting.

\*Physics has always been a really hard subject for me. I took AP physics in high school and it was so hard for me. And this is no different. I’m really trying but my brain doesn’t fundamentally understand physics. I have a really hard time understanding physics.

\* I still get confused on what lens to use sometimes.

\* Sometimes when we talk to each other no one knows what is going on so it can kind of be unproductive.

\*It would be nice if homework was a percentage of our grade since we are doing them and working hard on them.

*It sounds as though this could be frustrating. (as always) I suggest you work with friends – bring them to office hours or the learning center. I see homework (and attendance, Big Exams, and everything else) as a way to prepare and practice for the exams. You ARE getting credit for HW because when you do HW, you learn way more and get a better grade on exams.*

I honestly do not like the flipped classroom thing at all. I feel like we’re not really productive in class outside of Big Exams and even then, the focus isn’t on finding the answers to problems and more towards the “lenses”. Why is the focus on the lens so heavy? If I can defend a lens but can’t solve any sort of physics problem for shit, what is the point of lenses when they hardly help? Pete you’re a good guy but this isn’t for me.

*You sound disappointed. My experience is that students who don’t like this method can feel really cheated because other classes aren’t subjected to this “different” method. At the same time, I’ve already seen very positive results from this teaching method. But to answer your question... I have yet to meet a student who could set up a problem but not solve it. So, while I understand that it would be pointless if one could identify and motivate a lens, but not solve the problem. However, I’ve never met a student in this predicament. In my opinion, we’re spending our time and energy on exactly what gives students the most difficulty. Regardless, I encourage you to find a way to make this work for you. If you’d like to visit, we can talk about it.*

It’s frustrating to not have time to think out or comprehend the problem before having to group think. I need to struggle and connect before someone else makes the connection for me.

I do enjoy the video lectures and feel like I will learn with that style.

*Educators call this “think, pair, share”... you’re saying “more think before pair”... got it.*

I like the videos a lot more than I thought I would. However, I'm still struggling to apply the lenses effectively. It is a little exhausting to have physics 4 days a week as well. The big exams are really helpful for nerves and revealing what you don't know. Wish we had time to do more practice problems as a class. The work load is pretty fair as well, especially with the short textbook that is comprehensible.

I feel like I'm not really prioritizing physics. Anatomy & physiology is taking a lot of brain power right now and I just end up watching the videos so I don't get marked down, not so I actually am learning anything.

**BUT** I'm still able to follow in class and have done well on BE!#1 (and hopefully #2) so I guess it's Okay? Maybe?

I'm really enjoying this class so far. The reverse lecture style really lets me learn before class and solidify my understanding during class. The lack of pressure on the homework honestly motivates me to try harder on the HW because I know I'm doing it to learn. I feel like I'm really starting to understand physics and I'm enjoying it a lot!

I need to study a tad bit harder, but I'm on top of this and learning a lot.

I am trying to keep up with the learning but sometimes get caught up putting more energy into one of my classes than the other.

Hard to keep focus on everything, and apply the right lens, man.

Physics is a completely new subject to me, and I am still learning to work with Pete's teaching style but I know that with more "work" (haha, LOL the pun) I can succeed in this class. I am also having difficult time keeping up with all the new concepts, :(

Don't go off on so many tangents while teaching!

\*I like this way of learning because it seems to be common sense instead of formulas. Forced to use reason instead of just doing what the book says.

I'm having a really hard time connecting equations and terms to lens! I can identify and explain why I want to use a lens, but figuring out what equations to use makes me confused.

I know it's supposed to be kind of scattered since you learn all 4 at once but the videos are getting harder to follow. I wish free body diagrams were more consistently drawn since it can be applied to everything. Also, it's tough to watch the videos, do notes, read the textbook & do all HW every day since I'm in a O chem & other demanding classes. Also, if it's supposed to replace HW time w/ the flipped class, then why do we still have HW? I like that most things aren't graded though. It does reduce anxiety! Thanks ❤️

*I get it... we have lots to do... getting pulled in many different ways with different demands. Judging from the feedback I've gotten over the past 20 years, our "new" learning method doesn't take more time than other methods... it's that physics is a demanding subject. You're right about Free Body Diagrams: way important. We will be making a lot lot lot of FBDs. As for homework, I ask that everyone looks them over as soon as they're posted because we cover most*

*of the questions in class. Please take a look though the homework problems for PS#1 and PS#2, and consider if class time set you up well for them.*

There isn't a lot of time to watch the videos, take notes on videos, read the textbook and do the exercises in the textbook b/c we have class every day. I am also balancing three other classes with this. It's almost an online class. There also isn't a consistent free body diagram to follow. So you don't know if it's right. Nice and super funny guy Pete is so I come to class for pure entertainment. and leave happier. *Me too!*

- Going through a rough break up
- Homesick
- Too many units
- Applying for a job
- Spread too thin

Watching videos has been time consuming, but it is helping. I get frustrated getting questions wrong on them even though they don't count for anything.

How I feel about the class....

STRESSED

- I'm not sure how to start when given a problem.
- I'm not sure on how to explain the lens I choose.
- Worried that I won't do well on real exams.

Others:

The activity where we had to hand the homework back to the other was full of anxiety.

I personally find your teaching methods pretty interesting, but when it comes to problem solving I like to have a "concrete" plan to solve them. I like to find the pattern that is used to solve (for example kinematics. I know that when there is time as a unit of measurement, I use it). Other than that, I feel like this class is too 'freestyle' when it comes to solving problems.

I'm thinking I understand watching videos and reading but when it comes to applying information I realize I don't know anything.  
You're the man though.

I feel like I know the methods to solve but I get lost when trying to decide what lens or formulas to use. I feel like I need to learn how to decide on a method better but at the same time that just comes with practice. *I think you will find that as time goes on, this process will become more natural.*

I have been struggling in my personal life, making school hard to deal with. I'm doing m best to stay caught up and understanding what we are doing. I'm not used to this style of teaching or grading so I'm trying to adapt.

The big exam seems harder than other problems in class.

By the time I get to this class I'm too exhausted to think clearly in a short amount of time given for the big exam even with time to talk to people.

Just hoping I learn your language more, sometimes I mainly focus on the right numerical answers and need to work on my articulation of how to explain a process.

I'm pretty behind, gonna try to get my shit together this weekend.  
Starting to get a better grasp on the lenses, but still struggling with example problems.  
See you in office hours.

I am feeling stressed out and am worried that I am not prepared to get a good grade on the exam. How do we explain lenses better? *If you're asking me this question, I think you need to*

Overall, I like the idea of the numerical answer not mattering & the process being more important, but I am a very math brained person & I like numbers a lot. It's kind of almost frustrating that the numbers don't really matter. I am kind of nervous because I am taking the series that it's going to be hard to do well in the next 2, because I will have to completely change my ways again. I am also nervous about the midterm because I don't feel prepared. I still don't feel like I know how to get full credit. I like having a solution to problems. *Students have very little difficulty adjusting to a "regular" curriculum when they go onto the next class and they do well. Do well in this class, and you'll be well prepared for subsequent classes.*

- Struggling to grasp learning concept, hard to find lens at the start.
- I feel like I am a slow learning compared to others, when discussing problems. I need to find a study buddy to talk over physics problems.
- I feel overwhelmed by not understanding concepts right away.
- Really afraid on midterm, because I might run out of time, or because I may not understand the question.
- More practice problems w/ answers would be helpful, in addition to a cheat sheet to help walk through problems.

*I encourage you to come to office hours. We have a good time. We learn a lot.*

I definitely need to work harder. I really like the dynamic of the class. It really does allow for a lot of freedom, and I'm struggling to catch up.

I guess have a more practical way of reviewing for the midterm. I don't do well looking at multiple different things studying. It's easier to just look at one thing.

*I agree that having one thing in front of me is easier. However, on an exam (and in life) it isn't put in front of you that way. How do you know which "one thing" you will use? My answer for that is to practice this choosing process.*

I need to study more & rewatch certain videos. I don't always take notes on the videos, but I can always go back if needed. Overall, I like the speed & set up of this class.

I am understanding a lot more than I expected coming into this class. The videos & website are extremely helpful. I wish though that you would tell us which specific types of problems to look at before our midterms. (ex: momentum & carousel, nail in the wall, etc.)

When I watch the videos thoroughly, it can take me up to 2 hours to understand just 4 videos. I think I need to get used to learning a subject like physics as well as adjust to the way this class is taught. I'm retaking physics 121 so I'd expect to be less behind than I am, but I do feel like I actually have to understand the concepts rather than memorize formulas, which I appreciate.

I feel like class and videos have very fun/low stress environments. However, when it's time for Big Exams or PS, I am not confident in my work. Stressed out and still adjusting to teaching method. I think I like using equations as it gives me real, numerical examples rather than all conceptual/hypothetical examples.

This class is challenging me so far, and I very much want BE#2 back as I write this. I now want to properly exercise my skills in motivating a lens and setting up a method for each problem rather than just rapidly searching for the right answer like I usually do. Overall though I feel confident in what I'm doing in this class right now.

I am still adjusting to the format of the class. I often feel confused. I don't often feel confident in my answers whether right or wrong. To improve I want to start going to office hours because I have yet to go.

- I should bring a calculator.
- I have a lot of studying to do.

I have very much stress that I will fail in following physics classes because I feel as if I don't know how to actually solve a problem. I wish we could actually answer problems in class, like find the correct value. I feel as if videos are somewhat disorganized due to *...can't read this part...* Sometimes I find that questions asked in videos are hard to correlate to the video itself. I'm very scared I will fail this class due to its teaching style being so foreign to me. Also, TA's confuse me even more ☹.

*It sounds as though you're having a hard time. I think it would be good for you to find the resources you need... and/or people who speak your language. You have access to many solved problems through the solutions to problem sets and exams on our website and past websites. You can use free online textbooks to look over many many examples. I posted that link today on our main class website. Additionally, you can look through any text that you may want to buy or borrow (I have some to lend you).*

I'm spending a lot of time on this class, and I'm worried I will not do well. I do enjoy the videos and feel like they are a good reference. My main concern is getting the right numerical answer on text, but failing because I didn't explain it well enough.

