

Hi everybody.

Thanks for the feedback today at the end of our 9<sup>th</sup> week of class. Your statements are in black, mine are in purple. While most students are happy with the way things are going, some students are struggling and express that they have questions that don't get answered. I can imagine that this is frustrating. Additionally, my intention is that questions *are* addressed. If you have discussed a question with your group and no one understands it, I would like to know. If we don't have time in class, I will be glad to accept any questions by Email, phone, or office hours.

In general, if you are struggling and feel the present method isn't working, I wish to better support you. I encourage you to come to office hours and/or otherwise describe what might be helpful for me to do and/or for you to do differently.

I think you are a cool and fun guy, but I am still struggling with your methods and think it is somewhat ignorant to say that all students learn best the same way, regardless about what some survey stat says.

Declaring that all students learn best the same way sounds kind of narrow to me too. Furthermore, I feel dismissed if someone tells me that I don't understand myself. Yet there is considerable evidence that people are not good judges of their own intellectual development. For example, please read about the Dunning-Kruger Effect. Am I sure this scientific result (that there's no such thing as a personal learning style) is right? I think that this finding is likely a simplification, and we will learn that it is not complete. We have only recently started understanding how people learn. I also recognize that lots of learning styles work great... or good enough. For the last 200 years, physicists learned through lecture – homework – testing, and it worked... at least for some of us. Additionally, a learning method will be more effective if the student embraces it, so if a student has a preference for one style of learning, that preference alone may make this style more effective. As a data driven scientist, I value what I read in the scientific literature. I also think I'm obligated to communicate it to students. At the same time I should be open to other ideas, and I intend to support as best I can those who choose a different method. I hope I succeed at that.

I feel fine

Also, I need to catch up on this week's videos.

I feel a lot more comfortable using the lenses and although I am not sure how the lens method will translate to other physics classes, I feel it will greatly help me in the future.

Honestly, I feel a lot better now about physics than I did before the class. I felt that learning the stuff on my own, the use of lens, and the teaching style would make it harder for me. This is not the case. If anything, they were just different, and more effective teaching tools.

I really appreciate the way you're trying to teach us REAL physics. It takes so much effort for you to grade all our exams & big exams one by one and to comment on them. Trying to correct the way we process those problems. There are not many teachers like you anymore that care more about the way we process or learn than anything else. I really learn a lot especially when I ask you questions during office hours and you ask me more! :p I feel like I'm learning SO

MUCH real life physics in this class than I've ever learnt in my entire life! You're such a special teacher! It takes a lot of work from us too but yea I got used to it! THANK YOU!

Thanks for coming to office hours. I think many instructors care as much as I do, but I'm very glad that what we're doing is working for you.

Pete, you gotta lotta energy! And that's my favorite part of our class. You keep it interesting. But you also confuse me a lot and don't explain things clearly.

I wish Pete answered more of our questions, rather than always telling us to ask each other. Often, we all have the same question and never figure out the answer I like the stress on concepts and understanding a problem, but I wish Pete asked for more questions during class to check our understanding and improve it. Instead, he only asks us questions and doesn't give us much opportunity to ask our own questions.

The videos are hard to pay attention and retain information. I like the big exam format, but I wish there was more time to finish it. I also like the more conceptual way of learning that is not focused on final answers. I think it is a good concept of teaching, it can just be done better. Like when doing group problems in class, just putting the problem on the screen isn't very motivating for me and my group, if papers with the problem were handed out it would be better for us, not the environment.

This doesn't make sense to me, but I would consider distributing papers every day if it motivated students better. At the same time, I'm concerned about a deeper learning goal. Are we learning how to formulate and set up a problem? Are we able to conceptualize a problem and draw it up? This isn't just about physics, but about every challenge we will run into. I ask the students to consider this issue and what I might do and you might do to bring more value to our learning experience.

I think the way the class is taught teaches very well. I feel like I'm able to understand why we use formulas and why they are composed the way they are.

This not only gives me a good understanding of physics, but how I should try to learn in every class – to understand every fundamental component for myself. You're the most attention-capturing professor I've ever had.

I really like this class, but I wish we'd do more examples pertaining to lessons from the videos and when to apply them.

Hmmm. I thought that is what we do. Maybe you can help me by describing what this would look like. How would it be different.

I can really understand physics by using the concepts to analyze the problems. I feel confident about solving problems now.

I think I need to concentrate on the formulas because I learn the concepts by connecting them to a formula. On big exams, I usually have the concepts down but don't know where to start because I don't know the formulas.

This isn't what I think happens most of the time. However, I imagine it can happen. It may be a good idea to spend some time with your formula sheet. I noticed that one student created a

formula sheet that looked like the white board from the “big picture” video. I think that video may help bring the formulas together. In any case, yes, knowing the formulas is helpful too.

Pete is the Goat (Greatest Of All Time)

I like that the tests are more conceptual, but I always feel rushed.

I am starting to appreciate how confused I often feel in this class because it’s more rewarding when I finally figure it out.

At first, I was not confident in your approach to teaching physics. As we have moved into more complicated problems, I have definitely seen the value of your teaching style and I like your approach to physics.

Demonstrations like the ones today are extremely helpful, but most days are usually very confusing.

This class has been a good learning experience for me. I’ve enjoyed the way the class has been taught and how we focus on concepts rather than just getting the right answer. I sometimes struggle with videos not being as in depth as I would like them to be and I’m left with questions. I have liked the problems we have done in class and how we have incorporated homework into class too.

I feel okay so far. I am a little behind in the current material but have intent to catch up in Thanksgiving break. I will go over unwatched videos as well as ensure my understanding of PS#9.

I am struggling in class. I watch the videos and come to class but there’s just a lot coming at me at once. On tests/exams I have thought I had the concepts down, but I keep getting D’s. I honestly just want to get a C or higher on the final and I’ll determine this quarter a success.

The method of learning each concept has been very different from my last classes, but I think I am fully understanding the entire concept through this learning method.

Your class is awesome. Keep it up. I’m more concept-oriented than equation-oriented.

The videos are extremely hard to pay attention to for the whole time. It is just hard to learn in this class because I feel like the videos don’t teach that well and you barely go over anything in class. The problem sets are only helpful after I know the solutions because otherwise I just do it wrong and don’t know what is happening.

Not a huge fan of the flipped classroom. I still feel like class time is wasted. Some videos are very interesting; many are long and I lose interest quickly. Real world applications are great; I like those. I feel like the “Big Exams” are great working with people and solving together in class.

THANK YOU PETE!

What a way to understand physics. Like any artist, you can like Pete subjectively or objectively, but he is a great artist of physics.

I think that this method is giving me a better understanding of how to approach a physics problem in a general sense.

I really enjoy this new learning style that Pete is putting forth. This style puts the learning on the students so if the students want to learn, all the resources are there. Great Teacher. Take!