Physics in the Fullness of Times

Parent Informative

My name is Jacob Siebach, and I LOVE Physics. If my history of teaching is of any indication to me, I will grow to love your child(ren), my student(s), and will come to call them my "apprentice(s)". A student learns from a teacher, but an apprentice seeks to gain the knowledge and skills of the instructor. I hope that your child(ren) will truly learn to love Physics and desire to study the world around them.

My Philosophies

1. I teach all of my courses firmly grounded in the Restored Gospel of Jesus Christ. We will be using the scriptural canon and words of the Prophets from the Church of Jesus Christ of Latter-day Saints. If you are not a member of said Church, that does not at all preclude your child(ren) from attending! I grew up back East and spent most of my time with Catholics, Methodists, and even athiests! My interactions with these good people helped expand my mind, and I am still firm in my beliefs. My children attended a Protestant private school when we lived in Washington state, and it did not concern me. Also, BYU requires that all students take Book of Mormon classes to graduate, and they have many who do not ascribe to the faith of the Church of Jesus Christ of Latter-day Saints, including many Muslims, Jews, other Christians, etc. that take these classes and go on their way to graduate. So, while I do not require membership in or conversion to my Church, please know that it will be oft referenced and that God forms the foundation of all true Science.

2. I am a mentor, YOU are the parent. I have the right to be where my child is and to know what my child is learning, for I am the one with the responsibility and duty to teach them. As such, I expect you to exercise that same right for your child(ren). {You know what? I'm just going to write "children" from now on, but if you only have one child attending, substitute "child" for "children" in your mind.} You are welcomed, and even encouraged!, to come to class, field trips, etc. If you would like me to create a parent account for you on the class website so you can see what is there and read your children's responses to assignments, then I will be happy to set that up for you.

3. I expect your children to work! Education requires effort on the part of the learner, but when there's an instructor, it also takes effort for him or her, too. I put a significant amount of time into my lectures, demonstrations, projects, etc. so that your children have the opportunity to grow as much as they can. I do not tolerate disruptions or distractions, I expect them to fully participte in class, and I require study outside of class. I've taught Seminary, middle school, and guest-lectured for college courses, and I want scholars who truly want to learn.

4. Physics takes time. We read of stories in the scriptures and think that they happened over the course of a couple of days or weeks. Do you realize that when Nephi builds the ship to come to America, it probably took him *months* or over a year?? Have you ever gone mining before to extract ore? It's not an easy task. Have you ever smelted ore to extract the metals that you require for a project? It takes time to build a furnace, get the thing up to temperature, and have the ore react properly with addatives

to give the clean metal. Do you know what it takes to hew trees and then cut them into usable lumber? Lots of elbow grease. Now, after all of those steps, THEN Nephi can begin building the ship with his brothers. Similarly, the experiments performed by the great scientists took a long time to think up, set up, perform, and then record. Understanding does not come all at once, and the temptation for discouragement in these topics is real. There is no substitute for the time investment of repeated exposure to concepts and participation in working problems.

5. Physics *requires* math. Calculus is the language of Physics. You can understand some of the concepts without the mathematics, but you can't produce any of the electrical and mechanical wonders around us without understanding the numbers. Don't panic! I will teach the math required as the course progresses, and for those who really want to understand it, I will provide time after class to meet and review mathematical concepts and work problems. Additionally, math concepts are *much* easier to understand when taught as a *tool* for approaching specific, real-world situations. Physics is the BEST place to learn those tools.