



Physics for Scientists and Engineers: Foundations and Connections, Extended Version with Modern Physics

By Debora M. Katz



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Editorial Review

Review

"Deb Katz's approach is to tie entire chapters around interesting and relevant case studies that I really think will keep students reading and wanting to know more. She has been able to do this without compromising on the delivery core concepts the students need for their futures in science and engineering. In fact, I think the approach will help the students remember the core principles better."

"I really enjoyed the case studies and found them helpful in seeing the real world applications of physics."

"The details of the worked-out examples are invaluable in cementing good analytic, calculational, and calculator techniques for the students. These details are often unwisely left out in other calculus-based texts."

"I found the writing to be more like someone was teaching me through text rather than me struggling to decipher it. The student dialogues help especially when you're reading by yourself. Usually if you are studying with other students you can argue over your answer and discuss how you got there, but when you're studying alone it is difficult to be able to ask yourself the right questions. The dialogues provided different opinions that I could think about and agree or disagree with and come up with reasons why."

"Very few books take the dialog approach, which was used already very effectively by Plato. We all have a natural ability to understand stories and dialogues, and they are much more interesting than dry explanations. I think this device is perfect to address common misconceptions."

About the Author

Katz earned her PhD in Astrophysics from University of Minnesota, one of the top PER programs in the country. She has been active in the PER community and has attended multiple conferences to learn how to better integrate innovative pedagogies into the classroom. She has effectively done so in a very traditional environment at the Naval Academy, where she is a tenured professor. She is an active researcher who regularly works with undergraduate students.

Users Review

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