

Using Superheroes to Teach Physics: College Courses in Sci-Fi

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Can Superman teach college students about fluid dynamics?

(PhysOrg.com) -- One of the more perplexing questions facing science these days is this one: How do we get more young people interested in science? Leading the way are a number of college courses -- that can be taken for credit -- that focus on the science in science fiction. After all, why can't superheroes, Star Trek and Harry Potter teach us about the answer to life, the universe and everything? (Or, at least debate the merits of the answer "42".)

Perhaps the most scientific of these classes is The Science of Superheroes, a course taught at the University of California at Irvine. Superman becomes the poster-boy for fluid dynamics as he soars through the air. I'd imagine that students could learn about the drag produced by Superman's cape. Oh, and calculate how fast Lois Lane is plummeting toward the earth. How fast will Superman need to fly in order to catch her before she splatters on the pavement? Also addressed in the class: The strength of spider silk. You *know* that Peter Parker wants in on this one. WonderWoman and other superheroes are also used to illustrate basic physics concepts. If

elementary and secondary school teachers used Superman and Batman to teach science, I wonder if there would be more early interest in science.

At Frostburg State University there is a class offered on The Science of Harry Potter. I guess it's more fantasy than science fiction, but deep scientific questions are probed in this course. Remember the three-headed dog? Perhaps [genetic engineering](#) can explain it. And flying broomsticks (and falling off of them) offer yet another opportunity to talk about the physics of flight and gravity.

Science fiction offers more opportunities than just studying science. Just as science has long provided a basis for some philosophical and ethical discussions, science fiction provides those opportunities. Philosophy and Star Trek, taught at [Georgetown University](#), explores the deep issues presented in Star Trek, such as whether or not an android like Data constitutes a person. Race and metaphysics are also tackled. And topics encompassing the nature of reality and time travel are also discussed.

Sure, science majors aren't going to take these classes. But they could go some distance in helping everyone else learn a little more about science -- and even persuade a few more to become interested in following a scientific path.

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