Introductory physics courses targeting life science and premedical students are as challenging to teach as they are to take. Most students enroll in these courses to fulfill a requirement. Many are anxious about the challenges that they will face, and fear that their GPA — along with their med school dreams — will be destroyed. Many have little idea how physics relates to their future professional and personal needs and aspirations.

Faculty who teach these courses feel strong pressure from both the University and their students to deliver a high quality product, and typically invest far more time and energy in them than in their courses for physics majors. Yet these often heroic efforts are invariably "rewarded" by far harsher student evaluations.

I will argue that these courses are in fact the "canary in the coal mine" signaling the failure of our traditional modes of instruction. Unlike majors and other "true believers", who are able to achieve subject mastery with little guidance or motivation, connecting with non-believers requires faculty to actually teach. Traditional instruction may drive many gifted students away from physics and other "hard" subjects, and may account in part for the large attrition of women and minorities from physics between high school and university graduation. This is unfortunate to say the least, because physics is a prerequisite for many high-status, high-paying careers, and provides a compelling intellectual framework for organizing and understanding the world around us.

I will describe and demonstrate a variety of strategies to more fully engage non-believers, to convey to them the power and excitement of physics, and to address common psychological issues that affect student attitudes to and performance in physics.