

Abstract Submitted
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How Taking A Calculus-Based Introductory Physics Course Can Affect Students' Self-Efficacy With Regard To Physics AMANDA HORTON, COLBEY HAIR, MICHAEL GREENE, RAMON LOPEZ, University of Texas at Arlington — We are investigating how participating in a calculus-based physics course can affect students' self-efficacy with regard to physics and its applications. Data was collected by means of a survey taken near the end of the course, using Likert-type statements to determine attitudes from before and after taking the course. Students' responses are compared and correlated with various performance metrics, including academic background (high school performance, prior college courses, GPA, standardized tests), cognitive ability (mental rotation, scientific reasoning), nonacademic factors (length of commute, time slept per night, etc.), and final grade in the course. Preliminary results indicate that students who made a final grade of B or better have a greater increase in confidence than students who performed poorly (final grade lower than a B).

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