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Investigation of Factors That Influence a Student's Performance in an Introductory Physics Course COLBEY HAIR, AMANDA HORTON, MICHAEL GREENE, RAMON LOPEZ, University of Texas at Arlington — We are investigating a variety of factors related to student performance in a calculus-based introductory physics course. These factors include cognitive ability (mental rotation and scientific reasoning ability), academic acumen (grades in previous courses, high school performance), affective factors (perception of physics ability), and nonacademic factors (free time, commuting time, amount of sleep, etc.). The overall performance is represented by the final grade in the class. We will also include one factor that should have no effect on performance (length of hair) as a control. We will use traditional correlation methods to investigate the effects of these factors on the student's final grade. Initial results show a positive correlation between the reported amount of sleep per night and the overall performance, and a negative correlation between the length of commute and overall performance.

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