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Designing an Introductory Physics Course for Biological Science Students

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For the past four years the School of Physics and Astronomy at the University of Minnesota has been revising its Introductory Physics Course specifically targeted to biological science and pre-medical students. The course design process includes determining the reasons that introductory physics is required by the biology faculty and determining how or if to satisfy their goals. The resulting course must substantially satisfy the goals of the biology faculty, be an introductory physics course that stresses the application of fundamental principles and relates them to complex situations typical in biology, be of interest to beginning biology students, and be teachable by ordinary physics professors. The design process for the content and the pedagogy of the course will be described as will the resulting course structure. Student performance measures for the revised course will also be given.