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Problems Worthy of Our Pre-Medical and Pharmacy Majors
NORMA CHASE[1], MCPHS University - Boston — As the health professions have evolved both rapidly and dramatically during the late 20^{th} and early 21^{st} centuries, so have the physics curricula in Pre-medical and Pharmacy programs. In this work, we consider the question: What do future M.D.'s, P.A.'s, and Pharm.D.'s most need to learn from their introductory physics courses? We argue against the "survey of all of physics" and the "special medically-related physics topics" formats for Pre-medical and Pharmacy majors. We argue in favor of courses which cover less, dig deeper, and guide cognitive development. Our goal is to grow a group of students who are adept (and at ease) in analyzing and developing strategies for solving complicated problems (from first physics principles). On the path toward that goal, we require that students become proficient at "translating" between verbal, pictorial, graphical, and symbolic mathematical representations. In addition, we guide students towards becoming versatile in executing in multi-step reasoning processes. We illustrate our path towards the goal by presenting a collection of selected problems which are assigned in Foundations of Physics I and II at MCPHS University - Boston.

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