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Observation, Understanding and Belief: guiding students through the great texts of physics and astronomy KERRY KUEHN, Wisconsin Lutheran College — Questions such as "Is Newton's theory of gravity correct?" and "How do you know?" appeal to the innate sense of inquisitiveness and wonder that attracted many students (and professors) to the study of natural science in the first place. Seeking to answer such questions, one must typically acquire a deeper understanding of the technical aspects of the theory. In this way, broadly posed questions can serve as a motivation and guide to understanding scientific theories. During the past decade, I have developed and taught a four-semester introductory physics curriculum to undergraduate students at Wisconsin Lutheran College which is based on the careful reading, analysis and discussion of foundational texts in physics and astronomy—texts such as Newton's *Principia*, Huygens' *Treatise on Light*, and Pascal's *Equilibrium of Liquids*. This curriculum is designed to encourage a critical and circumspect approach to natural science, while at the same time developing a suitable foundation for advanced coursework in physics. In this talk, I will discuss the motivation, organization, unique features, and target audience of an undergraduate physics textbook, recently submitted for publication, which is based on this curriculum.

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