Teaching Quantum Mechanics in the Undergraduate Core Curriculum

ERIC RAYMER, St. John’s University — Core curriculum science courses designed for general audiences have a unique opportunity to focus on modern science while also engaging in broader social and philosophical issues. At St. John’s University, Scientific Inquiry is a required course curriculum course for non-science majors that is centered on science literacy and quantitative reasoning. These goals are addressed through a specific scientific “theme” unique to each section of the course. This presentation will examine how topics in quantum mechanics can be tailored to a general audience course such as Scientific Inquiry. We will present details of a course sequence that makes quantum foundations and quantum computing accessible and relevant to undergraduates in non-science programs. We will also examine how some of the pedagogical strategies used in Scientific Inquiry can be implemented in a traditional physics course to increase student engagement.

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