A recent National Public Radio story comparing United States mathematics education with that of other countries who tend to outperform the U.S. concluded that mathematics education is more effective at producing competency when, counter-intuitively, it does not focus exclusively on skills building. Instead, classrooms that challenge students to explore conceptual—or "philosophical"—questions tend to be more effective than those that remain primarily skills-based. This suggests that the study of mathematical and scientific processes by the humanities, in addition to attending to native educational objectives, can enhance engineering education objectives by focusing on core questions and conceptual understanding of mathematical and scientific processes. A growing body of scholarship has begun to examine similar relations between technical processes and, *e.g.*, writing composition and ethical decision making models. This paper will describe a multidisciplinary course taught for three consecutive years to engineering students by a collaboration of instructors from the Applied Mathematics and the Humanities departments at the University of Colorado at Boulder. The course, *Connections: Math, Physics, and Humanities*, was motivated by the perception that engineering students largely tended to dismiss the humanities as "irrelevant" to science and engineering activities—*even when they enjoyed* such courses. Using an historical approach to original texts, the course sought to make the case that the humanities are fundamentally relevant to the "internal" workings of scientific thought. For instance, the authors of seminal texts are often keenly aware of both the importance and the limitations of applicability of their new insights; those limitations are often 'forgotten' by people who publish later work but who lack a fundamental philosophical understanding of the work, such that concepts run the risk of being applied outside their scope of validity. This same thing happens with publications of new ideas in scientific and engineering disciplines. The basic objective of the course has proved successful; moreover, to our initial surprise, several students have indicated that the course has also helped them to become "better engineers." Specifically, one student observes that in asking more questions, he is better able to comprehend and utilize mathematical tools.