

1077-L1-517 **Emelie A Kenney*** (kenney@siena.edu), Department of Mathematics, Siena College, 515 Loudon Road, Loudonville, NY 12211. *Open Questions in Number Theory for Liberal Arts Students: The Good, the Bad, and the Underwhelming.*

Many institutions offer specially designed "core courses" so that non-science majors can satisfy a quantitative literacy requirement. Although not all faculty are fond of teaching them, such courses can present an opportunity to expose liberal arts students in a dynamic way to the wonder and joys of actually doing mathematics. We describe various ways we have incorporated unsolved problems in number theory and combinatorics into a history of mathematics core course. Sample assignments and in-class exercises are then provided and critiqued. Finally, we discuss favorable outcomes, drawbacks and shortcomings, and possible future refinements of this approach to engaging liberal arts students in their mathematical education within a rich, challenging context. (Received September 06, 2011)