

1096-K1-2568 **Alex M McAllister*** (alex.mcallister@centre.edu), Mathematics Department, Centre College, Danville, KY 40422. *Mathematical Impossibilities*.

This presentation discusses history of mathematics courses themed around “mathematical impossibilities;” namely, mathematically unsolvable questions and unprovable claims that do not have answers of the expected form. Such impossibilities will in some sense never be answered because mathematicians have proven that the hoped for answers simply do not exist. Topics in these courses have included non-Euclidean geometries, the insolvability of the quintic, geometric constructions, the Gödel incompleteness theorems, the continuum hypothesis, and the halting problem, as well as the history, people, and various consequences of these results. We discuss renditions of this course for majors, for freshman in first-year seminar, and for a diverse collection of students during a study abroad course in Greece. (Received September 17, 2013)