

1116-T5-608 **Sally Cockburn*** (scockbur@hamilton.edu), 198 College Hill Road, Clinton, NY 13323. *Senior Seminar in Set Theory as a Springboard for Mathematical Philosophy.*

A course in naive and axiomatic set theory provides a natural springboard for introducing students to many questions in mathematical philosophy: What is the ontological status of numbers, and does it depend on whether the numbers are finite or transfinite? What criteria should be used to determine the validity of a new mathematical concept, truth or expediency? How do humans, with fallible brains, have access to infallible mathematical truth? Is there any semantic content to mathematics, or is it purely syntax? Does mathematics reside inside human heads, or does it have some sort of external existence? At Hamilton College, I offer a senior seminar in which students spend the first two months learning the technical aspects of set theory using a Moore method approach, and the last month reading papers that address the issues and questions this material inspires. This has proved particularly successful as a “capstone experience” for the concentration. (Received September 08, 2015)