"I believe that healthcare is a human right whether you're old or young or rich or poor."
—Senator Bernie Sanders

# The Trivial Notions Seminar
Proudly Announces

# Computability Theory and Turing Degrees

A talk by

## Naomi Sweeting

**Abstract**

The first uncomputable sets studied by mathematicians—the set of Diophantine equations with a solution, the set of provable statements in ZFC, and the set of algorithms that halt in finite time—all belong to the same "Turing degree." This means they contain the same uncomputable information. But beyond these examples, there is a vast and wacky structure of different uncomputable sets. I will provide a short guided tour through this zoo and prove some theorems that illustrate important techniques in the field: the iterative "requirement" construction, and "forcing the jump."

## Friday, October 25th, at 12:30 pm
## Science Center 530

*This talk is dedicated to the memory of Gerald Sacks, eminent computability theorist and Harvard emeritus, who recently passed away.*