Mathematics and philosophy intersect historically, conceptually, and methodologically. Among other things, the notions of proof, argument, and deductive inference at the heart of mathematics are the same that drive much of contemporary analytic philosophy. At the same time, there are results in mathematics that illuminate perennial philosophical questions and even rule out historically influential answers to these questions. In this talk, we outline and assess the aims of an interdisciplinary second- and third-year seminar on mathematics and philosophy and describe some strategies for integrating mathematical results within philosophical debates. Some challenges for contextualizing the humanistic value of philosophy within a mathematics-driven course will be discussed. Ideas for topics of discussion, historical anecdotes, and in-class activities are actively solicited. (Received September 15, 2016)