

“Let no one enter here without geometry:” Reading Euclid in undergraduate Greek courses

In this talk, I will discuss ways to broaden the appeal of undergraduate Greek courses by incorporating mathematical authors, chiefly Euclid. Incorporating such authors into Greek courses creates new opportunities to attract and engage students, especially those whose primary interests lie in the sciences or mathematics. It also gives students with primary interests in classics and the humanities a new way for viewing mathematics. Furthermore, Greek language students who also take standard college mathematics classes will do so with an insight and context not often presented by modern mathematicians. In calculus, for example, many results directly use or are logical extensions of investigations concerning tangency and quadrature in the Greek mathematical corpus.

Much of my talk is based on a recent course in which students read Book I of the Elements. The students all had taken at least a year of Greek prior to enrollment. The course was run similar to an intermediate readings course, but also featured extensive chalkboard use for diagrams and analysis of the mathematical argument. Students also did independent translation projects using selections from other books of the Elements and other mathematical authors such as Archimedes. I will discuss selection of source texts for class readings and independent reading, supplementary course materials that I developed, my experiences from having given the course, and results of student and colleague feedback.