Maura Chhun (maura.chhun@metrostate.edu) and Matthew Moynihan* (mmoynihan@wooster.edu). Team Teaching the Math and History of Global Pandemics. Preliminary report.

Incorporating equal measures of mathematics and history, we describe a course that engages students with varying levels of experience in each subject. Through the study of the Black Death, cholera, the 1918 flu, and HIV/AIDS, students are introduced to mathematical modeling. Class discussions will focus on race, gender, and class as well as the historical outcomes of the pandemics. These class discussions will in turn lead to student-designed compartmental models in epidemiology. While the models use differential equations, we focus on quantitative exploration with historical grounding as opposed to mathematical rigor. This course will provide students with an understanding of how diseases are spread and the ways in which governments can respond effectively to public health crises. (Received September 20, 2016)