

AMSC/MATH 420, Spring 2014
First Project on Modeling Epidemics: Improving the Model

Oral presentation due Tuesday March 24

Written presentation due Thursday March 26

Start by downloading monthly AIDS diagnoses data for the entire U.S. and for the Dallas reporting area. The goals of this project are to develop and test methods for fitting parameters of a modified SIR model (to be discussed further in class) to the data and assessing the quality of the fit, then to add ingredients to the model in order to improve the quality of the fit. Complicating the model will always allow at least a marginal improvement in the fit, but the emphasis here is to see how big an improvement you can get with a relatively simple change to the model. Once you have improved the model for the two data sets assigned to you, see how well your improvement works for some other cities in the central U.S.