1056-39-1322 Raegan Higgins* (raegan.higgins@ttu.edu), Box 41042, Lubbock, TX 79423-1042. A Model of an SIR Disease on Time Scales. Preliminary report.

We formulate and analyze a model for an infectious disease on time scales. We derive a threshold value and show how this value is used to determine the likelihood of an epidemic. These results unify those obtained for differential and difference equations. (Received September 22, 2009)