

1046-Y1-1014      **Steven M Deckelman\*** ([deckelmans@uwstout.edu](mailto:deckelmans@uwstout.edu)), 237 Harvey Hall, Menomonie, WI 54751.  
*Sensitivity Analysis and Parameter Identification in Undergraduate Mathematical Modeling.*

Sensitivity analysis of parameters in mathematical models is becoming increasingly important in mathematical modeling, especially in mathematical biology. Curiously, although well known in the electrical engineering and control theory literature, sensitivity analysis does not seem to be well represented in the undergraduate mathematical modeling literature. This talk will describe some of the basic concepts of sensitivity analysis in the language of undergraduate mathematical modeling. We will also point out some of the connections between sensitivity theory and the fundamental problem of identifying model parameters. These concepts will be illustrated using the classical SIR model for epidemics. (Received September 13, 2008)