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A. S. Eljhader* (a.elkhader@northern.edu), Dept. of Sciences & Mathematics, Aberdeen, SD 57401. *Inquiry-Based Instruction in a Standard Differential Equations Course for Math Education Major.*

This study describes a suitable use of inquiry-based mathematics instruction in a standard elementary differential equations course. Students, who are math education majors, are introduced to linear and nonlinear systems of ordinary differential equations at the early stages of the course. Students, who worked in groups, were engaged in developing locally relevant models such as urban/rural interactions, mosquito growth, seasonal hunting and fishing, and others. Computer technology such as Maple was used to analyze the models, and to explore the various possible outcomes as parameters change. Students' attitude toward the pedagogy used in the course as well as other assessment tools will be shared. (Received August 27, 2014)