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The following review appeared in the November 2007 issue of CHOICE:

45-1503 QA371 2006-101376 CIP Brown, Courtney. **Differential equations: a modeling approach.** Sage Publications, CA, 2007. 106p bibl index afp

Brown (Emory Univ.) examines the use of differential equations in social science applications. He states that one of his goals is to "introduce differential equation modeling to a wider audience in the social sciences." He takes a very systematic approach to differential equations, emphasizing the basics of the field, and briefly discusses first-order equations, systems of first-order equations, transforming second-order equations into first-order systems, and stability analyses of linear and nonlinear differential equation systems. Throughout, he offers many examples of the techniques discussed, such as exponential growth and decay models, learning curves, logistic curves, predator-prey models, Richardson's Arms Race Model, Lanchester's Combat Models, and Rapoport's Production and Exchange Model. He offers computer programs that could be modified to fit other applications. Overall, Brown provides a concise, brief exposition on using differential equations in the social sciences. A reader with a strong background in mathematics, at least two semesters of calculus, and interest in the social sciences will find the book helpful in learning how this area of mathematics can be used in different applications. **Summing Up**: Recommended. Upper-division undergraduates through faculty. -- S. L. Sullivan, Catawba College