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The number of biology majors at our university has increased. Therefore, the demand for a special mathematics course for biology majors was large enough to make an experimental offering feasible. In addition, members of the biology faculty believe the quality of biology majors, especially their mathematical skills, has declined. Many students were not succeeding in entry-level biology courses due to their mathematics skills. The pilot course, Mathematics for Biology, presented college algebra in the context of biological applications. We believe students learn mathematics by doing mathematics. This informed the pedagogical features of the course. For example, students worked in groups to solve problems in class. These problems were used to review or launch mathematical topics. Whenever possible the problems were closely related to science. Graphing calculators were often used to facilitate exploring the mathematical concepts. Included in our presentation will be results of an evaluation of the course. In addition to quantitative data documenting change in students' content knowledge and attitude toward mathematics, case study data will be used to describe students' reactions to the course. (Received August 01, 2000)