The purpose of this talk is to describe the attitudes of students toward an experimental activity-based modeling college algebra course. The design of the course was based upon results from mathematics education research on student understanding of the concept of function and on a theory that mathematical understanding develops over time as students engage in meaningful and relevant mathematical activity. We taught the first pilot sections in Fall 2006 and have revised the curriculum over the last two years based upon the experiences of both instructors and students in the course. This talk will describe the course and give some of the current research results. (Received September 16, 2008)