Michelle R DeDeo* (mdeeo@unf.edu), Department of Mathematics and Statistics, 4567 St. John’s Bluff Rd., S., Jacksonville, FL 32224. Putting “College” back into College Algebra. Preliminary report.

Over the past few decades, the level of mathematics required for a college student has diminished. High failure rates have lead to the watering down of content required in college algebra courses nationwide. Failure rates in college algebra have not declined. To remedy this problem, we have created a computer-based college algebra course which still retains the elements of lecture and recitation, but includes a computer-based element. After one year, we have seen failure rates drop by a third. Why is this program successful? Besides requiring an extra hour of class a week, it typically requires the student to spend extra time on the computer to complete the required quizzes. This extra study - even though it may add only two or three hours per week to their work - is invaluable. Another reason this course is successful is that it requires extra time from the professor and the teaching assistants in helping the students to learn and work with the system. Content is also increased. Since the students are forced to learn the material correctly the first time, there is less need for review when techniques from previous chapters are implemented. Our next step is to see if this course has the same success rate without an assigned computer lab hour. (Received August 29, 2000)