Algebra is thought of by many as the gateway course to future success in mathematics and quantitative fields. The NCTM Standards (2000) emphasize Algebra as one of the five main content standards all students should study throughout their K-12 math education. Yet so many students arrive at the university to have that door shut when taking a college algebra course, as DFW rates range anywhere from 30-60\%.

This presentation will discuss similarities and differences between how algebra is presented and modeled at the high school and college level. Salient topics such as function, different model types, multiple representations, symbolic fluency, and real-life applications will be discussed. Integration of appropriate technology and the different ways technology is used at the two levels will be discussed. Special emphasis will be given to discussing how algebra can and should be viewed from both a procedural view and a conceptual one. The author will discuss his current work on a grant project that involves high school teachers and university faculty examining how to make students more successful in the transition between the two levels, especially within the content strand of algebra. Characteristics of students who are able to successfully transition will be shared. (Received September 23, 2009)

