962-D1-612 Silvia P Heubach* (sheubac@calstatela.edu), Dept. of Mathematics and Computer Science, California State University Los Angeles, 5151 State University Drive, Los Angeles, CA 90032-8204. An Alternative to College Algebra - An Introductory Modeling Course for Freshmen Liberal Arts Majors. Preliminary report.

The presenter will give a brief overview of a new modeling course she has developed with an NSF Course and Curriculum Development grant. She will share her experience in teaching the course in a computer laboratory using Mathematica, discuss student feedback, and present examples of final projects given in the course. The modeling course is geared toward non-science majors, especially students who are required to take only one mathematics course for their undergraduate degree. These students are typically very apprehensive about mathematics and perceive mathematics as balancing checkbooks and computing percentages. The goal of the course is to make students aware of the critical role that mathematical models play in everybody's life, and to get them more excited about mathematics through relevant examples various the disciplines. The availability of computer algebra systems and a focus primarily on discrete models and qualitative interpretation of the model behavior make it possible to design a modeling course at the freshman level. Technology is used for some of the advanced computations, for visualizing the model behavior and for explorations of "What if?" scenarios. Originally based on Mathematica, the course now also exists in a version based on the TI-89 calculator. (Received September 15, 2000)