1125-J5-2591   **Mary Parker*** (`mparker@austincc.edu`), **Hunter Ellinger** (`hunter@ellinger.org`) and **Lindsay Orlando** (`lorlando@austincc.edu`). *Mathematics for Modeling.* Preliminary report.

In our liberal-arts course, students investigate how models can be used to find formulas fitting sets of (potentially noisy) empirical data, to evaluate the mathematical implications of rules, and to design rules that will produce desired effects. Building student skill in imaginative spreadsheet use is an important goal for the course. Students investigate debt and savings situations (rule-driven models) and build spreadsheets that allow them to investigate the effects of non-standard payments of various types. Students fit linear, exponential, and quadratic models to data and combine them to fit more complex situations, such as constrained growth. Our materials are open-source. (Received September 20, 2016)