Barbara A. Shipman* (bshipman@uta.edu). Constructing Definitions in Undergraduate Real Analysis.

This presentation will highlight selections from my Active Learning Materials for Critical Thinking in a First Course in Real Analysis (www.uta.edu/faculty/shipman/analysis) with a focus on how they engage students in the creative mathematical processes of formulating good definitions. Through targeted questions and teamwork, students distill the meaning and subtleties of concepts in real analysis to create discerning definitions on topics including cardinality, convergence, and continuity. This work is supported in part by NSF grant #0837810. (Received September 16, 2011)