Jennifer Ann Czocher* (jczocher@math.ohio-state.edu). Comparing an Applications-first Approach and an Analytic Techniques-first Approach to Teaching Topics in Differential Equations. Preliminary report.

The subject of this talk will be an analysis of student solution strategies in an introductory course on differential equations for engineering majors. The analysis arises from a study designed to examine and compare the efficacy of two curricula, as implemented in two different lectures and is informed by the literature on conceptual knowledge. Preliminary results suggest that students do respond to differing instruction in concrete and detectable ways. (Received September 21, 2010)