The department of Applied Mathematics and Statistics at the Colorado School of Mines (Mines) is exploring a variety of pedagogical strategies to (i) encourage active learning in multi-section core mathematics courses and (ii) make the content of these courses more engaging and relevant to our students. With support from the Office of Naval Research, we have piloted a Student-Centered Active Learning Environment for Undergraduate Programs (SCALE-UP) version of our honors course in Multivariate Calculus. We have reinforced our instructional activities with undergraduate teaching assistants (UTAs) and Mathematica notebooks designed around the particulars of the weekly assignments for the SCALE-UP environment. With four-years of delivery, we take a moment to look back on the course and its accomplishments. In particular, we discuss our initial pilot, student feedback, lessons learned, content design (and re-design), and the impacts of these efforts on the students, UTAs and faculty who have participated in this model. (Received September 17, 2019)