## 1145-G1-104 **Brian Winkel\*** (brianwinkel@simiode.org), SIMIODE, 26 Broadway, Cornwall, NY 12518. Student Competition Using Differential Equation Modeling - SCUDEM for Students and Faculty. Student Competition Using Differential Equation Modeling - SCUDEM is an opportunity for teams of three students from high school and undergraduate programs to select one of three modeling scenarios and over the course of a week build a mathematical model with differential equations to address the scenario. Problem areas for selection are (1) physical sciences and engineering, (2) life sciences and chemistry, and (3) social sciences. Students assemble on Competition Saturday at regional local sites in the United States and beyond where they submit an Executive Summary for faculty judging; address a new feature added to their model; participate with their faculty coach in collegial development program; make a presentation of their model for immediate feedback and judging; and participate in a fun individual MathBowl. SCUDEM is held in late October each year and is about the chance to model using differential equations with immediate feedback in a supportive day of meeting other students of like interest and working with faculty to develop ideas on how to incorporate modeling into differential equations courses. Complete details with all past questions and student submissions are available at www.simiode.org/scudem. (Received July 29, 2018)