John Mosley* (jmosley@exeter.edu) and Aviva Halani (ahalani@exeter.edu). A Lab Approach to Calculus.

In a problem-based course where students are expected to work on a set of tasks for homework and share their solutions in class, some students struggle to see connections between problems. In this presentation, we discuss another inquiry-based structure used in a class covering topics from differential and integral calculus. Here, the problem-centered curriculum is built around weekly labs that emphasize graphical and numerical investigations. The focus of these investigations is to develop understanding of essential calculus concepts and their symbolic representations. Through these labs, students often discover new concepts or deepen their understanding of topics with which they are already familiar. Throughout the problem sets and labs, students are also expected to explore and write about the calculus ideas they encounter. We report on the implementation of such a class structure and share student feedback. (Received September 24, 2018)