Christine von Renesse* (cvonrenesse@westfield.ma.edu), Mairead Greene and Paula Shorter. Teaching Calculus 1 and 2 using Inquiry.

We will present an example of how Calculus 1 and 2 can be taught without any lecture, using inquiry-based techniques including small group work and large class discussion. The materials (see www.iblcalculus.com) were developed by Mairead Greene and Paula Shorter at Rockhurst University, MO, and have been used several times at Westfield State University, MA. The goal of the materials is for the students to develop a deep conceptual understanding by engaging them in the process of independently reasoning from concepts and prior knowledge to answer questions, solve problems and develop definitions and theorems. Data and anecdotes provide evidence of the success of this approach. (Received September 12, 2014)